

# COMPREHENSIVE REPORT

Report Date:12/03/2010

## Facility Information

<b>RBLC ID:</b>	TX-0574 (final)	<b>Date</b>
		<b>Determination</b>
		<b>Last Updated:</b> 09/14/2010
		<b>Permit Number:</b> PSDTX1017M1
<b>Corporate/Company</b>	DIAMOND SHAMROCK REFINING COMPANY L.P.	
<b>Name:</b>		
<b>Facility Name:</b>	VALERO THREE RIVERS REFINERY	<b>Permit Date:</b> 08/19/2010 (actual)
<b>Facility Contact:</b>	3617868286 JON.KIGGANS@VALERO.COM	<b>FRS Number:</b> UNKNOWN
<b>Facility Description:</b>	PETROLEUM REFINERY THIS PERMIT AMENDMENT AUTHORIZES EMISSIONS FROM MAINTENANCE, STARTUP, AND SHUTDOWN (MSS) ACTIVITIES AT THE VALERO THREE RIVERS REFINERY.	<b>SIC Code:</b> 2911
<b>Permit Type:</b>	A: New/Greenfield Facility	<b>NAICS Code:</b> 324110
<b>Permit URL:</b>		
<b>EPA Region:</b>	6	<b>COUNTRY:</b> USA
<b>Facility County:</b>	LIVE OAK	
<b>Facility State:</b>	TX	
<b>Facility ZIP Code:</b>		
<b>Permit Issued By:</b>	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) (Agency Name) RANDY HAMILTON(Agency Contact) (512) 239-1512 RHAMILTO@TCEQ.STATE.TX.US	
<b>Permit Notes:</b>	THIS PERMIT AMENDMENT AUTHORIZES EMISSIONS FROM MAINTENANCE, STARTUP, AND SHUTDOWN (MSS) ACTIVITIES AT THE VALERO THREE RIVERS REFINERY.	

## Process/Pollutant Information

<b>PROCESS NAME:</b>	FLARE MSS
<b>Process Type:</b>	50.008 (Petroleum Refining Flares and Incinerators (except acid gas/SRU incinerators - 50.006))
<b>Primary Fuel:</b>	
<b>Throughput:</b>	0
<b>Process Notes:</b>	EMISSIONS FROM MSS ACTIVITIES THAT ARE CONTROLLED BY THE PLANT FLARES.

<b>POLLUTANT NAME:</b>	Volatile Organic Compounds (VOC)
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**CAS Number:** VOC  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:**  
**Control Method:** (P) BEST PRACTICES  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** USE BEST PRACTICES TO RECOVER FLUIDS TO PROCESS AS MUCH AS POSSIBLE BEFORE VENTING RESIDUALS TO FLARE.

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** SEE NOTES  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:**  
**Control Method:** (N) BEST PRACTICES  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** USE BEST PRACTICES TO RECOVER FLUIDS TO PROCESS AS MUCH AS POSSIBLE BEFORE VENTING RESIDUALS TO FLARE.

**POLLUTANT NAME:** Sulfur Oxides (SOx)  
**CAS Number:** 7446  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SOx) )

**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:**  
**Control Method:** (P) BEST PRACTICES  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** USE BEST PRACTICES TO RECOVER FLUIDS TO PROCESS AS MUCH AS POSSIBLE BEFORE VENTING RESIDUALS TO FLARE. MINIMIZE AMOUNT OF SULFUR COMPOUNDS VENTED TO FLARE.

### Process/Pollutant Information

**PROCESS** MSS FOR PROCESS EQUIPMENT AND STORAGE TANKS  
**NAME:**  
**Process Type:** 50.999 (Other Petroleum/Natural Gas Production & Refining Sources (except 42 - Liquid Marketing))  
**Primary Fuel:**  
**Throughput:** 0  
**Process Notes:** CLEARING PROCESS EQUIPMENT AND STORAGE TANKS IN PREPARATION FOR MAINTENANCE, STARTUP, AND SHUTDOWN ACTIVITIES.

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)  
**CAS Number:** VOC  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:**  
**Control Method:** (B) VENT TO CONTROL UNTIL VOC CONCENTRATION < 10,000 PPMV  
**Est. % Efficiency:** 98.000

**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** IF VOC VAPOR PRESSURE OF MATERIAL CONTAINED IN VESSEL OR STORAGE TANK IS 0.5 PSIA OR GREATER, ROUTE TO CONTROL SUCH AS FLARE, THERMAL OXIDIZER, INTERNAL COMBUSTION ENGINE, CARBON ADSORBER. VENT TO ATMOSPHERE AFTER VOC CONVENTRATION IS MEASURED TO BE < 10,000 PPMV OR < 10% OF LOWER EXPLOSIVE LIMIT.

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**

**Did factors, other then air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:**  
**Control Method:** (P) BEST PRACTICES  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** EMISSIONS ARISE FROM CONTROL OF VOC BY COMBUSTION PROCESSES SUCH AS THERMAL OXIDIZERS OR INTERNAL COMBUSTION ENGINES. EMISSIONS FROM CONTROL BY FLARES ARE INCLUDED UNDER FLARE PROCESS. EMISSIONS ARE MINIMIZED BY USING BEST PRACTICES TO MINIMIZE AMOUNT OF VOC VENTED TO CONTROLS IN PREPARATION FOR MSS ACTIVITIES.

**POLLUTANT NAME:** Sulfur Oxides (SOx)  
**CAS Number:** 7446  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SOx) )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**

**Did factors, other then air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:**  
**Control Method:** (P) BEST PRACTICES

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** EMISSIONS ARISE FROM CONTROL OF VOC BY COMBUSTION PROCESSES SUCH AS THERMAL OXIDIZERS OR INTERNAL COMBUSTION ENGINES. EMISSIONS FROM CONTROL BY FLARES ARE INCLUDED UNDER FLARE PROCESS. EMISSIONS ARE MINIMIZED BY USING BEST PRACTICES TO MINIMIZE AMOUNT OF VOC AND SULFUR COMPOUNDS VENTED TO CONTROLS IN PREPARATION FOR MSS ACTIVITIES.

## Facility Information

<b>RBLC ID:</b>	TX-0562 (final)	<b>Date Determination</b>	
<b>Corporate/Company Name:</b>	CITGO REFINING AND CHEMICALS COMPANY LP	<b>Last Updated:</b>	10/05/2010
<b>Facility Name:</b>	CORPUS CHRISTI EAST PLANT	<b>Permit Number:</b>	9604A/PSD-TX-653M1
<b>Facility Contact:</b>	PHIL VRAZEL (361)844-4112 PVRAZEL@CITGO.COM	<b>Permit Date:</b>	07/09/2010 (actual)
<b>Facility Description:</b>	Crude Oil Refinery producing gasoline, diesel, and other chemicals	<b>FRS Number:</b>	UNKNOWN
<b>Permit Type:</b>	C: Modify process at existing facility	<b>SIC Code:</b>	2911
<b>Permit URL:</b>		<b>NAICS Code:</b>	324110
<b>EPA Region:</b>	6	<b>COUNTRY:</b>	USA
<b>Facility County:</b>	NUECES		
<b>Facility State:</b>	TX		
<b>Facility ZIP Code:</b>	78469-0321		
<b>Permit Issued By:</b>	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) (Agency Name) RANDY HAMILTON(Agency Contact) (512) 239-1512 RHAMILTO@TCEQ.STATE.TX.US		
<b>Other Agency Contact Info:</b>	Ozden Tamer, (512) 239-4577		
<b>Permit Notes:</b>	An Electrostatic Precipitator (ESP) is used after the No. 2 FCCU. De-SOx catalysts and low sulfur fuel are used to minimize SO2 emissions.		

## Process/Pollutant Information

**PROCESS NAME:** No. 2 FCCU

**Process Type:** 50.002 (Natural Gas/Gasoline Processing Plants)

**Primary Fuel:**

**Throughput:** 0

**Process Notes:** Hydrotreated, unhydrotreated and/or purchased gas oil is processed in the No. 2 FCCU to catalytically crack into lighter components.

**POLLUTANT NAME:** Sulfur Dioxide (SO<sub>2</sub>)

**CAS Number:** 7446-09-5

**Test Method:** Unspecified

**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SO<sub>x</sub>) )

**Emission Limit 1:** 25.0000 PPMVD ANNUAL

**Emission Limit 2:** 50.0000 PPMVD 7-DAY

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:**

**Control Method:** (B) There is an existing Electrostatic Precipitator after the No. 2FCCU. Also de-SO<sub>x</sub> catalysts are used to minimize SO<sub>2</sub>. Low sulfur fuel is also used in the refinery.

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** Hourly SO<sub>2</sub> is limited to 200 ppmvd at 0 percent oxygen

**POLLUTANT NAME:** Carbon Monoxide

**CAS Number:** 630-08-0

**Test Method:** Unspecified

**Pollutant Group(s):** ( InOrganic Compounds )

**Emission Limit 1:** 500.0000 PPMVD HOURLY

**Emission Limit 2:** 100.0000 PPMVD ANNUAL

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:**

**Control Method:** (N) Good combustion

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** CO emission limits are corrected to 0% excess oxygen

**POLLUTANT NAME:** Nitrogen Oxides (NO<sub>x</sub>)

**CAS Number:** 10102  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )  
**Emission Limit 1:** 180.0000 PPMVD HOURLY  
**Emission Limit 2:** 20.0000 PPMVD 365-DAY ROLLING AVERAGE  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:**  
**Control Method:** (N)  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NOx emission limits are corrected to 0% excess oxygen

**POLLUTANT NAME:** Particulate matter, total (TPM)  
**CAS Number:** PM  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Particulate Matter (PM) )  
**Emission Limit 1:** 2.0000 LB/1000LB COKEBURN  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** OTHER CASE-BY-CASE  
**Other Applicable Requirements:**  
**Control Method:** (A) Electrostatic Precipitator  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)  
**CAS Number:** VOC  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )  
**Emission Limit 1:** 10.0000 PPMVD HOURLY

**Emission Limit 2:** 10.0000 PPMVD ANNUAL  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:**  
**Control Method:** (N)  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Sulfuric Acid (mist, vapors, etc)  
**CAS Number:** 7664-93-9  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Particulate Matter (PM) )  
**Emission Limit 1:** 1.0000 LB/1000 LB COKEBURN  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** OTHER CASE-BY-CASE  
**Other Applicable Requirements:**  
**Control Method:** (A) Electrostatic Precipitator  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

## Facility Information

<b>RBLC ID:</b>	DE-0020 (final)	<b>Date Determination</b>
<b>Corporate/Company Name:</b>	VALERO ENERGY CORP	<b>Last Updated:</b> 08/02/2010
<b>Facility Name:</b>	VALERO DELAWARE CITY REFINERY	<b>Permit Number:</b> AQM-003/00016
<b>Facility Contact:</b>		<b>Permit Date:</b> 02/26/2010 (actual)
<b>Facility Description:</b>	191,100 BARREL PER DAY REFINERY AKA THE PREMCOR REFINING GROUP INC.	<b>FRS Number:</b> 110002508894
		<b>SIC Code:</b> 2911



<b>Permit Type:</b>	D: Both B (Add new process to existing facility) & C (Modify process at existing facility)	<b>NAICS Code:</b>	324110
<b>Permit URL:</b>			
<b>EPA Region:</b>	3	<b>COUNTRY:</b>	USA
<b>Facility County:</b>	NEW CASTLE		
<b>Facility State:</b>	DE		
<b>Facility ZIP Code:</b>	19706		
<b>Permit Issued By:</b>	DELAWARE DEPT OF NATURAL RES & ENV CTRL (Agency Name) MR. PAUL FOSTER(Agency Contact) (302)323-4542 PAUL.FOSTER@STATE.DE.US		
<b>Other Agency Contact Info:</b>	RAVI RANGAN, P.E. BRUCE STELTZER DNREC - AIR QUALITY MANAGEMENT SECTION (302) 323-4542		
<b>Permit Notes:</b>			

Process/Pollutant Information
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<b>PROCESS NAME:</b>	FLUIDIZED BED CATALYTIC CRACKING UNIT (FCCU)
<b>Process Type:</b>	50.003 (Petroleum Refining Conversion Processes (cracking, reforming, etc.))
<b>Primary Fuel:</b>	FCCU CATALYTIC COKE
<b>Throughput:</b>	
<b>Process Notes:</b>	

<b>POLLUTANT NAME:</b>	Sulfur Dioxide (SO2)
<b>CAS Number:</b>	7446-09-5
<b>Test Method:</b>	Unspecified
<b>Pollutant Group(s):</b>	( InOrganic Compounds , Oxides of Sulfur (SOx) )
<b>Emission Limit 1:</b>	25.0000 PPMVD@0%02 365 DAY ROLLING AVERAGE
<b>Emission Limit 2:</b>	50.0000 PPMVD@0%02 7 DAY ROLLING AVERAGE
<b>Standard Emission:</b>	25.0000 PPMVD@0%02 365 DAY ROLLING AVERAGE
<b>Did factors, other than air pollution technology considerations influence the BACT decisions:</b>	U
<b>Case-by-Case Basis:</b>	BACT-PSD
<b>Other Applicable Requirements:</b>	
<b>Control Method:</b>	(A) COGENERATIVE WET GAS SCRUBBER
<b>Est. % Efficiency:</b>	

**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Nitrogen Dioxide (NO<sub>2</sub>)  
**CAS Number:** 10102-44-0  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NO<sub>x</sub>) )  
**Emission Limit 1:** 20.0000 PPMVD 365-DAY ROLLING AV  
**Emission Limit 2:** 40.0000 PPMVD 7-DAY ROLLING AV  
**Standard Emission:** 202.0000 T 365-DAY ROLLING TOTAL  
**Did factors, other then air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** RACT  
**Other Applicable Requirements:** SIP , NSPS  
**Control Method:** (A) LOTOX  
**Est. % Efficiency:**  
**Compliance Verified:** No  
**Pollutant/Compliance Notes:**

Process/Pollutant Information
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**PROCESS NAME:** FLUIDIZED BED COKING UNIT (FCU)  
**Process Type:** 50.003 (Petroleum Refining Conversion Processes (cracking, reforming, etc.))  
**Primary Fuel:** FLUID COKE  
**Throughput:**  
**Process Notes:**

**POLLUTANT NAME:** Sulfur Dioxide (SO<sub>2</sub>)  
**CAS Number:** 7446-09-5  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SO<sub>x</sub>) )  
**Emission Limit 1:** 25.0000 PPMVD@0%02 365 DAY ROLLING AVERAGE  
**Emission Limit 2:** 50.0000 PPMVD@0%02 7 DAY ROLLING AVERAGE  
**Standard Emission:** 25.0000 PPMVD@0%02 365 DAY ROLLING AVERAGE  
**Did factors, other then air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:**  
**Control Method:** (A) COGENERATIVE WET GAS SCRUBBER  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

#### Process/Pollutant Information

**PROCESS NAME:** PACKAGE BOILERS (2004)  
**Process Type:** 12.390 (Other Gaseous Fuel & Gaseous Fuel Mixtures)  
**Primary Fuel:** REFINERY FUEL GAS  
**Throughput:** 216.00 MMBtu per hour  
**Process Notes:** TWO PACKAGE BOILERS FIRST PROPOSED IN 2004.

**POLLUTANT NAME:** Nitrogen Oxides (NOx)  
**CAS Number:** 10102  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )  
**Emission Limit 1:** 0.0200 LB/MMBTU 3-HR AVERAGE  
**Emission Limit 2:** 24.9000 T 12 MONTHS  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** RACT  
**Other Applicable Requirements:** NSPS , SIP  
**Control Method:** (N)  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

#### Process/Pollutant Information

**PROCESS NAME:** SULFUR RECOVERY UNIT

**Process Type:** 62.019 (Sulfur Recovery (except 50.006))  
**Primary Fuel:** PROCESS OFF-GASES  
**Throughput:** 822.00 LTPD  
**Process Notes:** 822 LONG TONS PER DAY EQUIVALENT SULFUR CAPACITY

**POLLUTANT NAME:** Sulfur Dioxide (SO<sub>2</sub>)  
**CAS Number:** 7446-09-5  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SO<sub>x</sub>) )  
**Emission Limit 1:** 250.0000 PPMVD @ 0% O<sub>2</sub> 12-HR ROLLING AV  
**Emission Limit 2:** 122.0000 LB/H 24-HR ROLLING AV  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** NSPS , SIP , OPERATING PERMIT  
**Control Method:** (A) TAIL GAS UNIT WITH STACK INCINERATOR  
**Est. % Efficiency:** 99.990  
**Compliance Verified:** Yes  
**Pollutant/Compliance Notes:**

## Process/Pollutant Information

**PROCESS NAME:** CRUDE UNIT ATMOSPHERIC HEATER 21-H-701  
**Process Type:** 11.390 (Other Gaseous Fuel & Gaseous Fuel Mixtures)  
**Primary Fuel:** REFINERY FUEL GAS  
**Throughput:**  
**Process Notes:** 456 MMBTU/HR ON 12-MONTH ROLLING BASIS AND 504 MMBTU/HR ON 24-HOUR ROLLING AVERAGE

**POLLUTANT NAME:** Nitrogen Oxides (NO<sub>x</sub>)  
**CAS Number:** 10102  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NO<sub>x</sub>) , Particulate Matter (PM) )  
**Emission Limit 1:** 0.0400 LB/MMBTU 3-HR ROLLING AV  
**Emission Limit 2:** 20.0000 LB/H 24-HR ROLLING AV

**Standard Emission:****Did factors, other than air pollution technology considerations influence the BACT decisions:** U**Case-by-Case Basis:** RACT**Other Applicable Requirements:** NSPS , OPERATING PERMIT**Control Method:** (A) SCR**Est. % Efficiency:****Compliance Verified:** Yes**Pollutant/Compliance Notes:** 21-H-701 AND 21-H-2 VENT TO COMMON SCR. EMISSION LIMITS ARE COMBINED FOR BOTH HEATERS. EMISSION LIMIT OF 60.9 TONS PER 12-MONTHS.**POLLUTANT NAME:** Ammonia (NH3)**CAS Number:** 7664-41-7**Test Method:** Unspecified**Pollutant Group(s):** ( InOrganic Compounds )**Emission Limit 1:** 10.0000 PPMVD @ 3% O2**Emission Limit 2:** 16.5000 T 12 MONTHS**Standard Emission:****Did factors, other than air pollution technology considerations influence the BACT decisions:** U**Case-by-Case Basis:** RACT**Other Applicable Requirements:** NSPS , SIP , OPERATING PERMIT**Control Method:** (A) AMMONIA SLIP FROM SCR**Est. % Efficiency:****Compliance Verified:** Yes**Pollutant/Compliance Notes:** 21-H-701 AND 21-H-2 VENT TO COMMON SCR. EMISSION LIMITS ARE COMBINED FOR BOTH HEATERS.

Process/Pollutant Information
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**PROCESS NAME:** CRUDE UNIT VACUUM HEATER 21-H-2**Process Type:** 12.390 (Other Gaseous Fuel & Gaseous Fuel Mixtures)**Primary Fuel:** REFINERY FUEL GAS**Throughput:** 240.00 MMBTU/H**Process Notes:** 240 MMBTU/HR ON 12-MONTH ROLLING AVERAGE BASIS 249 MMBTU/HR ON 24-HOUR ROLLING AVERAGE BASIS

**POLLUTANT NAME:** Ammonia (NH3)  
**CAS Number:** 7664-41-7  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 10.0000 PPMVD @ 3% O2  
**Emission Limit 2:** 16.5000 T 12-MONTHS  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** RACT  
**Other Applicable Requirements:** NSPS , SIP , OPERATING PERMIT  
**Control Method:** (A) AMMONIA SLIP FROM SCR  
**Est. % Efficiency:**  
**Compliance Verified:** Yes  
**Pollutant/Compliance Notes:** 21-H-701 AND 21-H-2 VENT TO COMMON SCR. EMISSION LIMITS ARE COMBINED FOR BOTH HEATERS.

**POLLUTANT NAME:** Nitrogen Oxides (NOx)  
**CAS Number:** 10102  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )  
**Emission Limit 1:** 0.0400 LB/MMBTU 3-HR ROLLING AV  
**Emission Limit 2:** 20.0000 LB/H 24-HR ROLLING AV  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** RACT  
**Other Applicable Requirements:** NSPS , SIP , OPERATING PERMIT  
**Control Method:** (A) SCR  
**Est. % Efficiency:**  
**Compliance Verified:** Yes  
**Pollutant/Compliance Notes:** 21-H-701 AND 21-H-2 VENT TO COMMON SCR. EMISSION LIMITS ARE COMBINED FOR BOTH HEATERS. EMISSION LIMIT OF 60.9 TONS PER 12 MONTHS.

**PROCESS NAME:** DCPD BOILER 1  
**Process Type:** 11.390 (Other Gaseous Fuel & Gaseous Fuel Mixtures)  
**Primary Fuel:** REFINERY FUEL GAS  
**Throughput:** 618.00 MMBTU/H  
**Process Notes:** BOILER 1 AT THE DEL CITY POWER PLANT

**POLLUTANT NAME:** Nitrogen Oxides (NOx)  
**CAS Number:** 10102  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )  
**Emission Limit 1:** 0.0150 LB/MMBTU 24-HOUR ROLLING AVERAGE  
**Emission Limit 2:** 40.6000 12-MONTHS  
**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** SIP

**Control Method:** (B) SCR WITH MODIFICATIONS TO EXISTING BURNERS AND AIR DISTRIBUTION TO BURNERS, OPTIMIZATION TO OVER-FIRE AIR SYSTEMS, INSTALLATION OF INDUCED FLUE GAS RECIRCULATION SYSTEMS, AND OTHER IMPROVEMENTS.

**Est. % Efficiency:**

**Compliance Verified:** No

**Pollutant/Compliance Notes:**

## Process/Pollutant Information

**PROCESS NAME:** DCPD BOILER 3  
**Process Type:** 11.390 (Other Gaseous Fuel & Gaseous Fuel Mixtures)  
**Primary Fuel:** REFINERY FUEL GAS  
**Throughput:** 618.00 MMBTU/H  
**Process Notes:** BOILER 3 AT THE DEL CITY POWER PLANT

**POLLUTANT NAME:** Nitrogen Oxides (NOx)  
**CAS Number:** 10102  
**Test Method:** Unspecified

**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )  
**Emission Limit 1:** 0.0150 LB/MMBTU 24-HOUR ROLLING AVERAGE  
**Emission Limit 2:** 40.6000 T 12-MONTHS  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** SIP  
**Control Method:** (B) SCR WITH MODIFICATIONS TO EXISTING BURNERS AND AIR DISTRIBUTION TO BURNERS, OPTIMIZATION TO OVER-FIRE AIR SYSTEMS, INSTALLATION OF INDUCED FLUE GAS RECIRCULATION SYSTEMS AND OTHER IMPROVEMENTS.  
**Est. % Efficiency:**  
**Compliance Verified:** No  
**Pollutant/Compliance Notes:**

Process/Pollutant Information
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**PROCESS NAME:** PACKAGE BOILERS (2009)  
**Process Type:** 13.310 (Natural Gas (includes propane and liquefied petroleum gas))  
**Primary Fuel:** REFINERY FUEL GAS  
**Throughput:** 99.90 MMBtu per hour  
**Process Notes:** FOUR PACKAGE BOILERS

**POLLUTANT NAME:** Nitrogen Oxides (NOx)  
**CAS Number:** 10102  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )  
**Emission Limit 1:** 0.0150 LB/MMBTU  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** RACT  
**Other Applicable Requirements:** SIP , OPERATING PERMIT  
**Control Method:** (B) SCR AND LOW NOX BURNERS  
**Est. % Efficiency:**  
**Compliance Verified:** Yes



**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Ammonia (NH3)  
**CAS Number:** 7664-41-7  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 10.0000 PPMVD @ 3% O2  
**Emission Limit 2:** 11.9000 T 12 MONTHS  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** RACT  
**Other Applicable Requirements:** SIP , OPERATING PERMIT  
**Control Method:** (N) AMMONIA SLIP FROM SCR SYSTEM  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** 11.9 TPY IS COMBINED FOR ALL 4 BOILERS.

**Facility Information**

<b>RBLC ID:</b>	LA-0213 (final)	<b>Date</b>
		<b>Determination Last</b>
		<b>Updated:</b> 03/05/2010
<b>Corporate/Company</b>	VALERO REFINING - NEW ORLEANS, LLC	<b>Permit Number:</b> PSD-LA-619(M5)
<b>Name:</b>		
<b>Facility Name:</b>	ST. CHARLES REFINERY	<b>Permit Date:</b> 11/17/2009 (actual)
<b>Facility Contact:</b>	ROB MARTIN 9857645605	<b>FRS Number:</b> 110002046189
<b>Facility Description:</b>	PETROLEUM REFINERY. PROJECT INVOLVES INCREASE IN CAPACITY FROM 220,000 TO 380,000 BARRELS PER DAY.	<b>SIC Code:</b> 2911
<b>Permit Type:</b>	D: Both B (Add new process to existing facility) &C (Modify process at existing facility)	<b>NAICS Code:</b> 324110
<b>Permit URL:</b>		
<b>EPA Region:</b>	6	<b>COUNTRY:</b> USA
<b>Facility County:</b>	ST. CHARLES	
<b>Facility State:</b>	LA	
<b>Facility ZIP Code:</b>	70079	

**Permit Issued By:** LOUISIANA DEPARTMENT OF ENV QUALITY (Agency Name)  
MR. KEITH JORDAN(Agency Contact) (225)219-3613 KEITH.JORDAN@LA.GOV  
**Other Agency Contact** PERMIT WRITER: MR. DAN NGUYEN, 225-219-3180

**Info:**

**Permit Notes:** APPLICATION ACCEPTED DATE REFLECTS DATE OF ADMINISTRATIVE COMPLETENESS. PSD-LA-619(M3), ISSUED JUNE 28, 2007, SPECIFIED THAT THE AVERAGING PERIOD FOR FUEL GAS H2S CONCENTRATION IS AN ANNUAL AVERAGE; REMOVED MAXIMUM LB/HR LIMITS FOR FUGITIVE AND AREA SOURCES AND SULFURIC ACID TANKS; AND INCREASED THE CIRCULATION RATE OF COOLING TOWER 2004-6 (EQT035) FROM 36,000 TO 43,200 GPM. PERMITTED PM10 EMISSIONS INCREASED BY 0.01 TPY; PERMITTED VOC EMISSIONS INCREASED BY 0.18 TPY. BACT WAS NOT REEVALUATED. PSD-LA-619(M4), ISSUED DECEMBER 5, 2008 TO REVISE THE SCOPE OF THE REFINERY EXPANSION PROJECT. PSD-LA-619(M5), ISSUED NOVEMBER 17, 2009 TO IMPLEMENT THE MSATII COMPLIANCE PROJECT AND SCALE DOWN THE ORIGINAL REFINERY EXPANSION PROJECT. BACT WAS NOT REEVALUATED. FCCU NO. 3 AND GDU NO. 2 HEATER WERE REMOVED. THE REVISION DROPPED H2SO4 OUT OF THE PSD REVIEW.

Process/Pollutant Information
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**PROCESS NAME:** BOILER 401-E (2004-10)  
**Process Type:** 11.390 (Other Gaseous Fuel & Gaseous Fuel Mixtures)  
**Primary Fuel:** REFINERY FUEL GAS  
**Throughput:** 525.00 MMBTU/H  
**Process Notes:** BOILER ALSO FIRES NATURAL GAS.

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 34.5900 LB/H HOURLY MAXIMUM  
**Emission Limit 2:**  
**Standard Emission:** 0.0800 LB/MMBTU HOURLY AVERAGE  
**Did factors, other then air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) PROPER EQUIPMENT DESIGN AND OPERATION, GOOD COMBUSTION PRACTICES, AND USE OF GASEOUS FUELS  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

## Process/Pollutant Information

**PROCESS** HEATERS/REBOILERS

**NAME:**

**Process Type:** 13.390 (Other Gaseous Fuel & Gaseous Fuel Mixtures)

**Primary Fuel:** REFINERY FUEL GAS

**Throughput:**

**Process Notes:** 6-81: 135 MM BTU/HR 2004-1: 86 MM BTU/HR 2004-2: 24 MM BTU/HR 2004-3: 52 MM BTU/HR 2004-4: 86 MM BTU/HR 2004-7: 885 MM BTU/HR 2004-8: 885 MM BTU/HR 2005-1: 1274 MM BTU/HR 2005-2: 744 MM BTU/HR 2005-3: 555 MM BTU/HR 2005-8: 100 MM BTU/HR 2005-9: 83 MM BTU/HR 2005-10: 336 MM BTU/HR 2005-22: 261 MM BTU/HR 2005-23: 100 MM BTU/HR 2005-24: 83 MM BTU/HR 2005-25: 336 MM BTU/HR SOURCES ALSO FIRE NATURAL GAS.

**POLLUTANT NAME:** Particulate matter, total < 10  $\mu$  (TPM10)

**CAS Number:** PM

**Test Method:** Unspecified

**Pollutant Group(s):** ( Particulate Matter (PM) )

**Emission Limit 1:** SEE NOTE

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** SIP , OPERATING PERMIT

**Control Method:** (P) PROPER EQUIPMENT DESIGN AND OPERATION, GOOD COMBUSTION PRACTICES, AND USE OF GASEOUS FUELS

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

**POLLUTANT NAME:** Sulfur Dioxide (SO<sub>2</sub>)

**CAS Number:** 7446-09-5

**Test Method:** Unspecified

**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SO<sub>x</sub>) )

**Emission Limit 1:** SEE NOTE

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (N) USE OF PIPELINE QUALITY NATURAL GAS OR REFINERY FUEL GASES WITH AN H2S CONCENTRATION LESS THAN 100 PPMV (ANNUAL AVERAGE).

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** NO EMISSION LIMITS

**POLLUTANT NAME:** Nitrogen Oxides (NOx)

**CAS Number:** 10102

**Test Method:** Unspecified

**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )

**Emission Limit 1:** 0.0400 LB/MMBTU THREE 1-HOUR TEST AVERAGE

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (P) ULTRA LOW NOX BURNERS

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Carbon Monoxide

**CAS Number:** 630-08-0

**Test Method:** Unspecified

**Pollutant Group(s):** ( InOrganic Compounds )

**Emission Limit 1:** 0.0800 LB/MMBTU THREE 1-HOUR TEST AVERAGE

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (P) PROPER EQUIPMENT DESIGN AND OPERATION, GOOD COMBUSTION PRACTICES, AND USE OF GASEOUS FUELS

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)

**CAS Number:** VOC

**Test Method:** Unspecified

**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )

**Emission Limit 1:** SEE NOTE

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (P) PROPER EQUIPMENT DESIGN AND OPERATION, GOOD COMBUSTION PRACTICES, AND USE OF GASEOUS FUELS

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

## Process/Pollutant Information

**PROCESS** HEATERS (2008-1 - 2008-9)

**NAME:**

**Process Type:** 12.390 (Other Gaseous Fuel & Gaseous Fuel Mixtures)

**Primary Fuel:** PROCESS FUEL GAS

**Throughput:**

**Process Notes:** 2008-1: 36 MM BTU/HR 2008-2: 880 MM BTU/HR 2008-3: 641 MM BTU/HR 2008-4: 108 MM BTU/HR 2008-5: 123 MM BTU/HR 2008-6: 803 MM BTU/HR 2008-7: 122 MM BTU/HR 2008-8: 803 MM BTU/HR 2008-9: 122 MM BTU/HR SOURCES ALSO FIRE NATURAL GAS.

**POLLUTANT NAME:** Sulfur Dioxide (SO<sub>2</sub>)

**CAS Number:** 7446-09-5

**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SO<sub>x</sub>) )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (N) USE OF PIPELINE QUALITY NATURAL GAS OR PROCESS FUEL GASES WITH AN H<sub>2</sub>S CONCENTRATION LESS THAN 10 PPMV (ANNUAL AVERAGE).  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS

**POLLUTANT NAME:** Nitrogen Oxides (NO<sub>x</sub>)  
**CAS Number:** 10102  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NO<sub>x</sub>) , Particulate Matter (PM) )  
**Emission Limit 1:** 0.0400 LB/MMBTU THREE 1-HOUR TEST AVERAGE AIR PREHEATED  
**Emission Limit 2:** 0.0300 LB/MMBTU THREE 1-HOUR TEST AVERAGE  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) ULTRA LOW NOX BURNERS  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 0.0800 LB/MMBTU HOURLY AVERAGE

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (P) COMPLY WITH 40 CFR 60 SUBPARTS NNN AND RRR

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)

**CAS Number:** VOC

**Test Method:** Unspecified

**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )

**Emission Limit 1:** SEE NOTE

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (P) COMPLY WITH 40 CFR 60 SUBPARTS NNN AND RRR

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

**POLLUTANT NAME:** Particulate matter, total < 10 µ (TPM10)

**CAS Number:** PM

**Test Method:** Unspecified

**Pollutant Group(s):** ( Particulate Matter (PM) )

**Emission Limit 1:** SEE NOTE

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT , SIP  
**Control Method:** (P) COMPLY WITH 40 CFR 60 SUBPARTS NNN AND RRR  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

### Process/Pollutant Information

**PROCESS NAME:** MVR THERMAL OXIDIZER NO. 2 (2008-38)  
**Process Type:** 50.008 (Petroleum Refining Flares and Incinerators (except acid gas/SRU incinerators - 50.006))  
**Primary Fuel:** REFINERY FUEL GAS  
**Throughput:** 200.00 MMBTU/H  
**Process Notes:** SOURCES ALSO FIRE NATURAL GAS.

**POLLUTANT NAME:** Particulate matter, total < 10  $\mu$  (TPM10)

**CAS Number:** PM

**Test Method:** Unspecified

**Pollutant Group(s):** ( Particulate Matter (PM) )

**Emission Limit 1:** 2.2300 LB/H HOURLY MAXIMUM

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** SIP , OPERATING PERMIT

**Control Method:** (P) PROPER EQUIPMENT DESIGN AND OPERATION, GOOD COMBUSTION PRACTICES, AND USE OF GASEOUS FUELS

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Sulfur Dioxide (SO<sub>2</sub>)

**CAS Number:** 7446-09-5

**Test Method:** Unspecified

**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SO<sub>x</sub>) )



**Emission Limit 1:** 0.4500 LB/H HOURLY MAXIMUM

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (N) USE OF PIPELINE QUALITY NATURAL GAS OR PROCESS FUEL GASES WITH AN H2S CONCENTRATION LESS THAN 10 PPMV (ANNUAL AVERAGE).

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Nitrogen Oxides (NO<sub>x</sub>)

**CAS Number:** 10102

**Test Method:** Unspecified

**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NO<sub>x</sub>) , Particulate Matter (PM) )

**Emission Limit 1:** 29.4100 LB/H HOURLY MAX

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (P) PROPER EQUIPMENT DESIGN AND OPERATION, GOOD COMBUSTION PRACTICES, AND USE OF GASEOUS FUELS

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Carbon Monoxide

**CAS Number:** 630-08-0

**Test Method:** Unspecified

**Pollutant Group(s):** ( InOrganic Compounds )

**Emission Limit 1:** 24.7100 LB/H HOURLY MAXIMUM

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (P) PROPER EQUIPMENT DESIGN AND OPERATION, GOOD COMBUSTION PRACTICES, AND USE OF GASEOUS FUELS

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)

**CAS Number:** VOC

**Test Method:** Unspecified

**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )

**Emission Limit 1:** 5.4000 LB/H HOURLY MAXIMUM

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (P) COMPLY WITH 40 CFR 61 SUBPART BB

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:**

## Process/Pollutant Information

**PROCESS NAME:** HEATERS (94-21 & 94-29)

**Process Type:** 13.390 (Other Gaseous Fuel & Gaseous Fuel Mixtures)

**Primary Fuel:** REFINERY FUEL GAS

**Throughput:**

**Process Notes:** SOURCE ALSO FIRES NATURAL GAS. 94-21: 48 MM BTU/HR 94-29: 75 MM BTU/HR

**POLLUTANT NAME:** Sulfur Dioxide (SO<sub>2</sub>)

**CAS Number:** 7446-09-5

**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SO<sub>x</sub>) )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (N) USE OF PIPELINE QUALITY NATURAL GAS OR REFINERY FUEL GASES WITH AN H<sub>2</sub>S CONCENTRATION LESS THAN 100 PPMV (ANNUAL AVERAGE).  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

**POLLUTANT NAME:** Nitrogen Oxides (NO<sub>x</sub>)  
**CAS Number:** 10102  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NO<sub>x</sub>) , Particulate Matter (PM) )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) LOW NOX BURNERS  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** SEE NOTE

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (P) PROPER EQUIPMENT DESIGN AND OPERATION, GOOD COMBUSTION PRACTICES, AND USE OF GASEOUS FUELS

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)

**CAS Number:** VOC

**Test Method:** Unspecified

**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )

**Emission Limit 1:** SEE NOTE

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (P) PROPER EQUIPMENT DESIGN AND OPERATION, GOOD COMBUSTION PRACTICES, AND USE OF GASEOUS FUELS

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

**POLLUTANT NAME:** Particulate matter, total < 10 µ (TPM10)

**CAS Number:** PM

**Test Method:** Unspecified

**Pollutant Group(s):** ( Particulate Matter (PM) )

**Emission Limit 1:** SEE NOTE

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other then air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** SIP , OPERATING PERMIT

**Control Method:** (P) PROPER EQUIPMENT DESIGN AND OPERATION, GOOD COMBUSTION PRACTICES, AND USE OF GASEOUS FUELS

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

### Process/Pollutant Information

**PROCESS NAME:** CPF HEATER H-39-03 & H-39-02 (94-28 & 94-30)

**Process Type:** 13.390 (Other Gaseous Fuel & Gaseous Fuel Mixtures)

**Primary Fuel:** REFINERY FUEL GAS

**Throughput:**

**Process Notes:** H-30-03: 68 MM BTU/HR H-39-02: 90 MM BTU/HR SOURCES ALSO FIRE NATURAL GAS.

**POLLUTANT NAME:** Particulate matter, total < 10  $\mu$  (TPM10)

**CAS Number:** PM

**Test Method:** Unspecified

**Pollutant Group(s):** ( Particulate Matter (PM) )

**Emission Limit 1:** 0.0074 LB/MMBTU ANNUAL AVERAGE

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other then air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** SIP , OPERATING PERMIT

**Control Method:** (P) PROPER EQUIPMENT DESIGN AND OPERATION, GOOD COMBUSTION PRACTICES, AND USE OF GASEOUS FUELS

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Nitrogen Oxides (NO<sub>x</sub>)

**CAS Number:** 10102  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )  
**Emission Limit 1:** 0.0500 LB/MMBTU THREE ONE HOUR TEST AVERAGE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) LOW NOX BURNERS  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 0.0800 LB/MMBTU THREE ONE HOUR TEST AVERAGE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) PROPER EQUIPMENT DESIGN AND OPERATION, GOOD COMBUSTION PRACTICES, AND USE OF GASEOUS FUELS  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)  
**CAS Number:** VOC  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )

**Emission Limit 1:** 0.0054 LB/MMBTU ANNUAL AVERAGE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) PROPER EQUIPMENT DESIGN AND OPERATION, GOOD COMBUSTION PRACTICES, AND USE OF GASEOUS FUELS  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Sulfur Dioxide (SO<sub>2</sub>)  
**CAS Number:** 7446-09-5  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SO<sub>x</sub>) )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (N) USE OF PIPELINE QUALITY NATURAL GAS OR REFINERY FUEL GASES WITH AN H<sub>2</sub>S CONCENTRATION LESS THAN 100 PPMV (ANNUAL AVERAGE).  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS

Process/Pollutant Information
-------------------------------

**PROCESS NAME:** BOILERS (94-43 & 94-45)  
**Process Type:** 11.390 (Other Gaseous Fuel & Gaseous Fuel Mixtures)  
**Primary Fuel:** REFINERY FUEL GAS  
**Throughput:** 354.00 MMBTU/H EA

**Process Notes:**

SOURCES ALSO BURN NATURAL GAS.

**POLLUTANT NAME:** Particulate matter, total < 10  $\mu$  (TPM10)**CAS Number:** PM**Test Method:** Unspecified**Pollutant Group(s):** ( Particulate Matter (PM) )**Emission Limit 1:** 2.6400 LB/H HOURLY MAXIMUM**Emission Limit 2:****Standard Emission:****Did factors, other than air pollution technology considerations influence the BACT decisions:** U**Case-by-Case Basis:** BACT-PSD**Other Applicable Requirements:** SIP , OPERATING PERMIT**Control Method:** (P) CLEAN FUELS**Est. % Efficiency:****Compliance Verified:** Unknown**Pollutant/Compliance Notes:****POLLUTANT NAME:** Sulfur Dioxide (SO<sub>2</sub>)**CAS Number:** 7446-09-5**Test Method:** Unspecified**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SO<sub>x</sub>) )**Emission Limit 1:** 9.4300 LB/H HOURLY MAXIMUM**Emission Limit 2:****Standard Emission:****Did factors, other than air pollution technology considerations influence the BACT decisions:** U**Case-by-Case Basis:** BACT-PSD**Other Applicable Requirements:** OPERATING PERMIT**Control Method:** (N) USE OF PIPELINE QUALITY NATURAL GAS OR REFINERY FUEL GASES WITH AN H<sub>2</sub>S CONCENTRATION LESS THAN 100 PPMV (ANNUAL AVERAGE).**Est. % Efficiency:****Compliance Verified:** Unknown**Pollutant/Compliance Notes:****POLLUTANT NAME:** Nitrogen Oxides (NO<sub>x</sub>)



**CAS Number:** 10102  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )  
**Emission Limit 1:** 46.3700 LB/H HOURLY MAXIMUM FOR BOILER 94-43  
**Emission Limit 2:** 36.8200 LB/H HOURLY MAXIMUM FOR BOILER 94-45  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** NSPS , OPERATING PERMIT  
**Control Method:** (P) FUEL CHOICE, OPERATING TECHNIQUES, AND LOW NOX BURNERS  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 29.1500 LB/H HOURLY MAXIMUM  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) GOOD OPERATING PRACTICES  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)  
**CAS Number:** VOC  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )  
**Emission Limit 1:** 1.9100 LB/H HOURLY MAXIMUM

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (N)

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:**

Process/Pollutant Information
-------------------------------

**PROCESS NAME:** FLARE 1-5 (15-77, 12-81, 2004-5A, 2004-5B & 2005-38)

**Process Type:** 50.008 (Petroleum Refining Flares and Incinerators (except acid gas/SRU incinerators - 50.006))

**Primary Fuel:**

**Throughput:**

**Process Notes:**

**POLLUTANT NAME:** Particulate matter, total < 10 µ (TPM10)

**CAS Number:** PM

**Test Method:** Unspecified

**Pollutant Group(s):** ( Particulate Matter (PM) )

**Emission Limit 1:** SEE NOTE

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (P) COMPLY WITH 40 CFR 63 SUBPART A

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

**POLLUTANT NAME:** Sulfur Dioxide (SO2)

**CAS Number:** 7446-09-5  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SOx) )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (N) USE OF PIPELINE QUALITY NATURAL GAS OR REFINERY FUEL GASES WITH AN H2S CONCENTRATION LESS THAN 100 PPMV (ANNUAL AVERAGE) AS FUELS AT FLARE TIP.  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

**POLLUTANT NAME:** Nitrogen Oxides (NOx)  
**CAS Number:** 10102  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )  
**Emission Limit 1:** SEEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) COMPLY WITH 40 CFR 63 SUBPART A  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )

**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) COMPLY WITH 40 CFR 63 SUBPART A  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)  
**CAS Number:** VOC  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) COMPLY WITH 40 CFR 63 SUBPART A  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

**POLLUTANT NAME:** Hydrogen Sulfide  
**CAS Number:** 7783-06-4  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) COMPLY WITH 40 CFR 63 SUBPART A  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

## Process/Pollutant Information

**PROCESS** COOLING TOWERS (13-81, 2004-6, 2005-42, 2005-43, 2008-35)

**NAME:**

**Process Type:** 99.009 (Industrial Process Cooling Towers)

**Primary Fuel:**

**Throughput:**

**Process Notes:** 13-81: 61,000 GPM 2004-6: 42,000 GPM 2005-42: 32,000 GPM 2005-43: 32,000 GPM 2008-35: 50,000 GPM (AROMATIC RECOVERY UNIT)

**POLLUTANT NAME:** Particulate matter, total < 10  $\mu$  (TPM10)

**CAS Number:** PM

**Test Method:** Unspecified

**Pollutant Group(s):** ( Particulate Matter (PM) )

**Emission Limit 1:** SEE NOTE

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (A) DRIFT ELIMINATORS

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** NO EMISSION LIMITS

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)

**CAS Number:** VOC

**Test Method:** Unspecified

**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) MONITORING PROCESS SIDE OF THE HEAT EXCHANGERS FOR LEAKS 2008-35: VOC MONITORING PROGRAM MEETS 40 CFR 63 SUBPART F  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS

**POLLUTANT NAME:** Hydrogen Sulfide  
**CAS Number:** 7783-06-4  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 0.0100 LB/H HOURLY MAXIMUM  
**Emission Limit 2:** 0.0100 T/YR ANNUAL MAXIMUM  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (N)  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** LIMITS IN PERMIT READ

Process/Pollutant Information
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**PROCESS NAME:** SRU THERMAL OXIDIZERS (99-3, 99-4, 2005-39, 2007-4)  
**Process Type:** 50.006 (Petroleum Refining Treating Processes (hydrotreating, acid gas removal, SRU's, etc.))  
**Primary Fuel:**  
**Throughput:** 50.00 MMBTU/H

**Process Notes:** 99-3: 60 MM BTU/HR 99-4: 60 MM BTU/HR 2005-39: 50 MM BTU/HR 2007-4: 50 MM BTU/HR

**POLLUTANT NAME:** Particulate matter, total < 10  $\mu$  (TPM10)

**CAS Number:** PM

**Test Method:** Unspecified

**Pollutant Group(s):** ( Particulate Matter (PM) )

**Emission Limit 1:** 1.4000 LB/H

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (P) PROPER EQUIPMENT DESIGN AND OPERATION, GOOD COMBUSTION PRACTICES, AND USE OF GASEOUS FUELS

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Sulfur Dioxide (SO<sub>2</sub>)

**CAS Number:** 7446-09-5

**Test Method:** Unspecified

**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SO<sub>x</sub>) )

**Emission Limit 1:** 250.0000 PPMVD 12 HOUR ROLLING AVERAGE

**Emission Limit 2:** 115.3100 LB/H

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** NSPS , OPERATING PERMIT

**Control Method:** (N) CONTROL DEVICE - COMPLY WITH 40 CFR 60 SUBPART J

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Nitrogen Oxides (NO<sub>x</sub>)

**CAS Number:** 10102  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )  
**Emission Limit 1:** 9.4000 LB/H  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) PROPER EQUIPMENT DESIGN AND OPERATION, GOOD COMBUSTION PRACTICES  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 8.1100 LB/H HOURLY MAXIMUM  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) PROPER EQUIPMENT DESIGN AND OPERATION, GOOD COMBUSTION PRACTICES  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)  
**CAS Number:** VOC  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )  
**Emission Limit 1:** 0.3400 LB/H HOURLY MAXIMUM



**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (P) PROPER EQUIPMENT DESIGN AND OPERATION, GOOD COMBUSTION PRACTICES

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Hydrogen Sulfide

**CAS Number:** 7783-06-4

**Test Method:** Unspecified

**Pollutant Group(s):** ( InOrganic Compounds )

**Emission Limit 1:** 1.7300 LB/H HOURLY MAXIMUM

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (P) PROPER EQUIPMENT DESIGN AND OPERATION, GOOD COMBUSTION PRACTICES

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:**

## Process/Pollutant Information

**PROCESS NAME:** FCCU REGENERATOR (16-77)

**Process Type:** 50.003 (Petroleum Refining Conversion Processes (cracking, reforming, etc.))

**Primary Fuel:**

**Throughput:**

**Process Notes:** 130,000 BBLs/DAY

**POLLUTANT NAME:** Particulate matter, total < 10  $\mu$  (TPM10)

**CAS Number:** PM  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Particulate Matter (PM) )  
**Emission Limit 1:** 74.6000 LB/H  
**Emission Limit 2:** 240.8600 T/YR  
**Standard Emission:** 2.0000 LB/T OF COKE  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (A) WET SCRUBBER  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Sulfur Oxides (SOx)  
**CAS Number:** 7446  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SOx) )  
**Emission Limit 1:** 176.1200 LB/H  
**Emission Limit 2:** 326.3500 T/YR  
**Standard Emission:** 50.0000 PPMV 7 DAY ROLLING AVERAGE  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** NSPS , OPERATING PERMIT  
**Control Method:** (A) WET SCRUBBER  
**Est. % Efficiency:** 90.000  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Nitrogen Oxides (NOx)  
**CAS Number:** 10102  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )  
**Emission Limit 1:** 145.3200 LB/H

**Emission Limit 2:** 182.7300 T/YR

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (N)

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Carbon Monoxide

**CAS Number:** 630-08-0

**Test Method:** Unspecified

**Pollutant Group(s):** ( InOrganic Compounds )

**Emission Limit 1:** 696.8000 LB/H

**Emission Limit 2:** 95.0000 T/YR

**Standard Emission:** 250.0000 MG/NM3

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (P) FULL BURN DESIGN

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)

**CAS Number:** VOC

**Test Method:** Unspecified

**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )

**Emission Limit 1:** 15.5000 LB/H

**Emission Limit 2:** 13.6000 T/YR

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (P) FULL BURN

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Hydrogen Sulfide

**CAS Number:** 7783-06-4

**Test Method:** Unspecified

**Pollutant Group(s):** ( InOrganic Compounds )

**Emission Limit 1:** 0.9000 LB/H

**Emission Limit 2:** 1.6800 T/YR

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (N)

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:**

## Process/Pollutant Information

**PROCESS NAME:** PETROLEUM PRODUCT LOADING DOCKS (94-9)

**Process Type:** 50.004 (Petroleum Refining Feedstock (blending, loading and unloading))

**Primary Fuel:**

**Throughput:**

**Process Notes:**

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)

**CAS Number:** VOC

**Test Method:** Unspecified

**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )

**Emission Limit 1:** 687.0000 LB/H HOURLY MAXIMUM

**Emission Limit 2:** 160.2500 T/YR ANNUAL MAXIMUM  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (B) COMPLY WITH LAC 33:III.2108 FOR LOADING MATERIALS WITH VAPOR PRESSURE > 1.5 PSIA  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

Process/Pollutant Information
-------------------------------

**PROCESS NAME:** COKER NOS. 1 & 2 STEAM VENT (2005-58 & 2005-59)  
**Process Type:** 50.999 (Other Petroleum/Natural Gas Production & Refining Sources (except 42 - Liquid Marketing))  
**Primary Fuel:**  
**Throughput:** 77.50 MMSCF/YR  
**Process Notes:**

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)  
**CAS Number:** VOC  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )  
**Emission Limit 1:** 14.2100 LB/H HOURLY MAXIMUM  
**Emission Limit 2:** 5.1900 T/YR ANNUAL MAXIMUM  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (N)  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

## Process/Pollutant Information

**PROCESS NAME:** COKE HANDLING (5-83)

**Process Type:** 50.999 (Other Petroleum/Natural Gas Production & Refining Sources (except 42 - Liquid Marketing))

**Primary Fuel:**

**Throughput:**

**Process Notes:**

**POLLUTANT NAME:** Particulate matter, total < 10  $\mu$  (TPM10)

**CAS Number:** PM

**Test Method:** Unspecified

**Pollutant Group(s):** ( Particulate Matter (PM) )

**Emission Limit 1:** 2.4700 T/YR ANNUAL MAXIMUM

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** SIP , OPERATING PERMIT

**Control Method:** (P) KEEP COKE WET WHILE STORING AND TRANSPORTING

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:**

## Process/Pollutant Information

**PROCESS** FUGITIVE EMISSIONS

**NAME:**

**Process Type:** 50.007 (Petroleum Refining Equipment Leaks/Fugitive Emissions)

**Primary Fuel:**

**Throughput:**

**Process Notes:** INCLUDING: ROAD DUST 90-0: REFINERY FUGITIVES 2008-39: ARU FUGITIVES 2008-37: ARU MARINE LOADING DOCK FUGITIVES

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)

**CAS Number:** VOC  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** SIP , OPERATING PERMIT  
**Control Method:** (P) REFINERY (90-0); LA REFINERY MACT LDAR PROGRAM; ARU (2008-39); MONITORING ACCORDING TO 40 CFR 63 SUBPART H; ARU LOADING (2008-37); MONITORING ACCORDING TO 40 CFR 61 SUBPART V  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

**POLLUTANT NAME:** Hydrogen Sulfide  
**CAS Number:** 7783-06-4  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (N)  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** FROM REFINERY FUGITIVES. NO EMISSION LIMITS AVAILABLE

**POLLUTANT NAME:** Particulate matter, total < 10 µ (TPM10)  
**CAS Number:** PM  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Particulate Matter (PM) )

**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:**  
**Control Method:** (P) PAVING ROADS OR WETTING UNPAVED ROADS AS NECESSARY  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** ROAD DUST. NO EMISSION LIMITS AVAILABLE

### Process/Pollutant Information

**PROCESS NAME:** MVR THERMAL OXIDIZER NO. 1 (94-8)  
**Process Type:** 50.008 (Petroleum Refining Flares and Incinerators (except acid gas/SRU incinerators - 50.006))  
**Primary Fuel:**  
**Throughput:** 240.00 MMBTU/H  
**Process Notes:**

**POLLUTANT NAME:** Particulate matter, total < 10  $\mu$  (TPM10)  
**CAS Number:** PM  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Particulate Matter (PM) )  
**Emission Limit 1:** 1.8000 LB/H HOURLY MAXIMUM  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) USE OF GASEOUS FUELS  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**



**POLLUTANT NAME:** Sulfur Dioxide (SO<sub>2</sub>)  
**CAS Number:** 7446-09-5  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SO<sub>x</sub>) )  
**Emission Limit 1:** 3.3000 LB/H HOURLY MAXIMUM  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (N) USE OF PIPELINE QUALITY NATURAL GAS OR REFINERY FUEL GASES WITH AN H<sub>2</sub>S CONCENTRATION LESS THAN 100 PPMV (ANNUAL AVERAGE).  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Nitrogen Oxides (NO<sub>x</sub>)  
**CAS Number:** 10102  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NO<sub>x</sub>) , Particulate Matter (PM) )  
**Emission Limit 1:** 23.5000 LB/H HOURLY MAXIMUM  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) PROPER EQUIPMENT DESIGN AND OPERATION, GOOD COMBUSTION PRACTICES  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** Unspecified

**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 19.8000 LB/H HOURLY MAXIMUM  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) PROPER EQUIPMENT DESIGN AND OPERATION, GOOD COMBUSTION PRACTICES  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)  
**CAS Number:** VOC  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )  
**Emission Limit 1:** 442.0000 LB/H HOURLY MAXIMUM  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** SIP , OPERATING PERMIT  
**Control Method:** (N) COMPLY WITH LAC 33:III.2108 AND 40 CFR 63 SUBPART CC  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Hydrogen Sulfide  
**CAS Number:** 7783-06-4  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 0.9500 LB/H HOURLY MAXIMUM  
**Emission Limit 2:**  
**Standard Emission:**

**Did factors, other then air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (N)

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:**

### Process/Pollutant Information

**PROCESS NAME:** WASTEWATER COLLECTION & TREATMENT: ARU

**Process Type:** 64.006 (Wastewater Collection & Treatment)

**Primary Fuel:**

**Throughput:**

**Process Notes:** WW (EQT0255) - AROMATIC RECOVERY UNIT

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)

**CAS Number:** VOC

**Test Method:** Unspecified

**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )

**Emission Limit 1:** SEE NOTE

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other then air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (P) COMPLY WITH 40 CFR 63 SUBPARTS F & G

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** NO EMISSION LIMITS

### Process/Pollutant Information

**PROCESS NAME:** TANKS - FOR BENZENE, XYLENE, SULFOLANE, PAREX, INTERMEDIATE

**Process Type:** 42.009 (Volatile Organic Liquid Storage)

**Primary Fuel:**

**Throughput:**

**Process Notes:** 16 IFR TANKS

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)

**CAS Number:** VOC

**Test Method:** Unspecified

**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )

**Emission Limit 1:** SEE NOTE

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (B) EQUIPPED WITH INTERNAL FLOATING ROOFS FOLLOWED BY THERMAL OXIDIZERS

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** NO EMISSION LIMITS

## Process/Pollutant Information

**PROCESS NAME:** TANKS - FOR LIGHT MATERIALS, SOUR WATER, NAPHTHA, RAFFINATE

**Process Type:** 42.006 (Petroleum Liquid Storage in Floating Roof Tanks)

**Primary Fuel:**

**Throughput:**

**Process Notes:** 38 TANKS

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)

**CAS Number:** VOC

**Test Method:** Unspecified

**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )

**Emission Limit 1:** SEE NOTE

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (P) EQUIP WITH FLOATING ROOFS (IFR OR EFR) & COMPLY WITH 40 CFR 60 SUBPART KB OR 40 CFR 63 SUBPART CC

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** NO EMISSION LIMITS

### Process/Pollutant Information

**PROCESS NAME:** ARU FLARE (2008-36)

**Process Type:** 50.008 (Petroleum Refining Flares and Incinerators (except acid gas/SRU incinerators - 50.006))

**Primary Fuel:** PROCESS FUEL GAS

**Throughput:**

**Process Notes:** ALSO FUELED BY NATURAL GAS

**POLLUTANT NAME:** Particulate matter, total < 10  $\mu$  (TPM10)

**CAS Number:** PM

**Test Method:** Unspecified

**Pollutant Group(s):** ( Particulate Matter (PM) )

**Emission Limit 1:** SEE NOTE

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (P) COMPLY WITH 40 CFR 60 SUBPART A

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

**POLLUTANT NAME:** Nitrogen Oxides (NOx)  
**CAS Number:** 10102  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) COMPLY WITH 40 CFR 60 SUBPART A  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) COMPLY WITH 40 CFR 60 SUBPART A  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)  
**CAS Number:** VOC  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )

**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) COMPLY WITH 40 CFR 60 SUBPART A  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

**POLLUTANT NAME:** Sulfur Dioxide (SO<sub>2</sub>)  
**CAS Number:** 7446-09-5  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SO<sub>x</sub>) )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) FUELED BY NATURAL GAS OR PROCESS FUEL GAS WITH H<sub>2</sub>S  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

Process/Pollutant Information
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**PROCESS NAME:** BOILERS (2008-10, 2008-11, 2008-40)  
**Process Type:** 11.390 (Other Gaseous Fuel & Gaseous Fuel Mixtures)  
**Primary Fuel:** REFINERY FUEL GAS  
**Throughput:** 715.00 MMBTU/H EA  
**Process Notes:** ALSO FUELED BY NATURAL GAS AND PROCESS FUEL GAS

**POLLUTANT NAME:** Particulate matter, total < 10 µ (TPM10)  
**CAS Number:** PM  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Particulate Matter (PM) )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) COMPLY WITH 40 CFR 60 SUBPARTS NNN AND RRR  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

**POLLUTANT NAME:** Sulfur Dioxide (SO2)  
**CAS Number:** 7446-09-5  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SOx) )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) FUELED BY NATURAL GAS AND/OR REFINERY FUEL GAS WITH H2S  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

**POLLUTANT NAME:** Nitrogen Oxides (NOx)  
**CAS Number:** 10102  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )



**Emission Limit 1:** 0.0400 LB/MMBTU WITH COMBUSTION AIR PREHEAT  
**Emission Limit 2:** 0.0300 LB/MMBTU WITHOUT COMBUSTION AIR PREHEAT  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) ULTRA LOW NOX BURNERS  
**Est. % Efficiency:** 79.000  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 0.0800 LB/MMBTU THREE ONE HOUR TEST AVE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:**  
**Control Method:** (P) COMPLY WITH 40 CFR 60 SUBPARTS NNN AND RRR  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)  
**CAS Number:** VOC  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) COMPLY WITH 40 CFR 60 SUBPARTS NNN AND RRR  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

### Process/Pollutant Information

**PROCESS NAME:** DHT HEATERS (4-81, 5-81)  
**Process Type:** 13.390 (Other Gaseous Fuel & Gaseous Fuel Mixtures)  
**Primary Fuel:** REFINERY FUEL GAS  
**Throughput:** 70.00 MMBTU/H EA  
**Process Notes:** ALSO FUELED BY NATURAL GAS

**POLLUTANT NAME:** Particulate matter, total < 10  $\mu$  (TPM10)  
**CAS Number:** PM  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Particulate Matter (PM) )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) GASEOUS FUELS  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

**POLLUTANT NAME:** Sulfur Dioxide (SO<sub>2</sub>)  
**CAS Number:** 7446-09-5  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Inorganic Compounds , Oxides of Sulfur (SO<sub>x</sub>) )

**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) FUELED BY NATURAL GAS OR REFINERY FUEL GAS WITH H2S  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

**POLLUTANT NAME:** Nitrogen Oxides (NOx)  
**CAS Number:** 10102  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )  
**Emission Limit 1:** 0.0800 LB/MMBTU THREE ONE HOUR TEST AVERAGE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) LOW NOX BURNERS  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 0.0800 LB/MMBTU THREE ONE HOUR TEST AVERAGE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) PROPER DESIGN AND OPERATION, GOOD COMBUSTION PRACTICES  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)  
**CAS Number:** VOC  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) PROPER DESIGN AND OPERATION, GOOD COMBUSTION PRACTICES  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

Process/Pollutant Information
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**PROCESS NAME:** HEATER F-72-703 (7-81)  
**Process Type:** 11.390 (Other Gaseous Fuel & Gaseous Fuel Mixtures)  
**Primary Fuel:** REFINERY FUEL GAS  
**Throughput:** 633.00 MMBTU/H  
**Process Notes:** ALSO FUELED BY NATURAL GAS

**POLLUTANT NAME:** Particulate matter, total < 10  $\mu$  (TPM10)  
**CAS Number:** PM  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Particulate Matter (PM) )

**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) GASEOUS FUELS  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

**POLLUTANT NAME:** Sulfur Dioxide (SO<sub>2</sub>)  
**CAS Number:** 7446-09-5  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SO<sub>x</sub>) )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) FUELED BY NATURAL GAS OR REFINERY FUEL GAS WITH H<sub>2</sub>S  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

**POLLUTANT NAME:** Nitrogen Oxides (NO<sub>x</sub>)  
**CAS Number:** 10102  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NO<sub>x</sub>) , Particulate Matter (PM) )  
**Emission Limit 1:** 0.0800 LB/MMBTU THREE ONE HOUR AVERAGE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) LOW NOX BURNERS  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 0.0800 LB/MMBTU THREE ONE HOUR TEST AVERAGE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) PROPER DESIGN AND OPERATION, GOOD COMBUSTION PRACTICES  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)  
**CAS Number:** VOC  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) PROPER DESIGN AND OPERATION, GOOD COMBUSTION PRACTICES  
**Est. % Efficiency:**

**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

### Process/Pollutant Information

**PROCESS NAME:** THERMAL OXIDIZERS (2008-32, 2008-33, 2008-34)  
**Process Type:** 50.008 (Petroleum Refining Flares and Incinerators (except acid gas/SRU incinerators - 50.006))  
**Primary Fuel:** PROCESS FUEL GAS  
**Throughput:** 15.00 MMBTU/H EA  
**Process Notes:** ALSO FUELED BY NATURAL GAS

**POLLUTANT NAME:** Particulate matter, total < 10 µ (TPM10)

**CAS Number:** PM

**Test Method:** Unspecified

**Pollutant Group(s):** ( Particulate Matter (PM) )

**Emission Limit 1:** SEE NOTE

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (P) PROPER DESIGN AND OPERATION, GOOD COMBUSTION PRACTICES, AND GASEOUS FUELS

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

**POLLUTANT NAME:** Sulfur Dioxide (SO<sub>2</sub>)

**CAS Number:** 7446-09-5

**Test Method:** Unspecified

**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SO<sub>x</sub>) )

**Emission Limit 1:** SEE NOTE

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) FUELED BY NATURAL GAS AND PROCESS FUEL GAS WITH H2S  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

**POLLUTANT NAME:** Nitrogen Oxides (NOx)  
**CAS Number:** 10102  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) PROPER DESIGN AND OPERATION, GOOD COMBUSTION PRACTICES  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) PROPER DESIGN AND OPERATION, GOOD COMBUSTION PRACTICES  
**Est. % Efficiency:**



**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)  
**CAS Number:** VOC  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) PROPER DESIGN AND OPERATION, GOOD COMBUSTION PRACTICES  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

## Process/Pollutant Information

**PROCESS NAME:** TANKS - FOR HEAVY MATERIALS  
**Process Type:** 42.005 (Petroleum Liquid Storage in Fixed Roof Tanks)  
**Primary Fuel:**  
**Throughput:**  
**Process Notes:** 39 FIXED ROOF TANKS

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)  
**CAS Number:** VOC  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) EQUIPPED WITH FIXED ROOF AND COMPLY WITH 40 CFR 63 SUBPART CC  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

#### Process/Pollutant Information

**PROCESS NAME:** TANKS - FOR SPENT CAUSTIC  
**Process Type:** 62.020 (Inorganic Liquid/Gas Storage & Handling)  
**Primary Fuel:**  
**Throughput:**  
**Process Notes:** 2 FIXED ROOF TANKS

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)  
**CAS Number:** VOC  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:**  
**Control Method:** (P) FIXED ROOF AND SUBMERGED FILL LINES (LAC 33:III.2103)  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

#### Process/Pollutant Information

**PROCESS NAME:** LOADINGS - REFINERY

**Process Type:** 50.004 (Petroleum Refining Feedstock (blending, loading and unloading))

**Primary Fuel:**

**Throughput:**

**Process Notes:** SULFURIC ACID LOADING TRUCK/RAILCAR LOADING SULFUR LOADING

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)

**CAS Number:** VOC

**Test Method:** Unspecified

**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )

**Emission Limit 1:** SEE NOTE

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (P) TRUCK/RAILCAR LOADING: COMPLY WITH 40 CFR 63 SUBPART CC

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

**POLLUTANT NAME:** Hydrogen Sulfide

**CAS Number:** 7783-06-4

**Test Method:** Unspecified

**Pollutant Group(s):** ( InOrganic Compounds )

**Emission Limit 1:** SEEE NOTE

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:**

**Control Method:** (P) PROPER DESIGN AND OPERATION

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

## Process/Pollutant Information

**PROCESS NAME:** LOADINGS - AROMATIC RECOVERY UNIT  
**Process Type:** 64.005 (Transfer of SOCMI Chemicals (loading/unloading, filling, etc.))  
**Primary Fuel:**  
**Throughput:**  
**Process Notes:**

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)

**CAS Number:** VOC

**Test Method:** Unspecified

**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )

**Emission Limit 1:** SEE NOTE

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:**

**Control Method:** (P) RAILCAR LOADING: COMPLY WITH 40 CFR 63 SUBPART G MARINE LOADING: COMPLY WITH 40 CFR 61 SUBPART BB

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

## Process/Pollutant Information

**PROCESS NAME:** PROCESS VENTS - REFINERY (CCEX)  
**Process Type:** 50.999 (Other Petroleum/Natural Gas Production & Refining Sources (except 42 - Liquid Marketing))  
**Primary Fuel:**  
**Throughput:**  
**Process Notes:**

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)

**CAS Number:** VOC  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (B) ROUTE TO THE FUEL GAS SYSTEMS OR FLARES OR COMPLY WITH 40 CFR 63 SUBPART CC  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

**POLLUTANT NAME:** Hydrogen Sulfide  
**CAS Number:** 7783-06-4  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (B) ROUTE TO FUEL GAS SYSTEMS OR FLARES  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

Process/Pollutant Information
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**PROCESS NAME:** VENT GAS WASH TOWER (99-8)  
**Process Type:** 50.006 (Petroleum Refining Treating Processes (hydrotreating, acid gas removal, SRU's, etc.))

**Primary Fuel:**

**Throughput:**

**Process Notes:**

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)  
**CAS Number:** VOC  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (N)  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

Process/Pollutant Information
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**PROCESS NAME:** WASTEWATER COLLECTION & TREATMENT: REFINERY  
**Process Type:** 50.009 (Petroleum Refining Wastewater and Wastewater Treatment)  
**Primary Fuel:**  
**Throughput:**  
**Process Notes:** WW (EQT0255) WWTU (EQT0359) CRUIDS (EQT0369)

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)  
**CAS Number:** VOC  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT , NESHA

**Control Method:** (P) WW (EQT0255): COMPLY WITH LA REFINERY MACT WWTU (EQT0359): COMPLY WITH 40 CFR 61 SUBPART FF CRUIDS (EQT369): COMPLY WITH 40 CFR 63 SUBPARTS F & G

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

### Process/Pollutant Information

**PROCESS NAME:** CRU: CHLOROSORB VENT AND DUST COLLECTOR

**Process Type:** 50.003 (Petroleum Refining Conversion Processes (cracking, reforming, etc.))

**Primary Fuel:**

**Throughput:**

**Process Notes:**

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)

**CAS Number:** VOC

**Test Method:** Unspecified

**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )

**Emission Limit 1:** SEE NOTE

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (P) COMPLY WITH 40 CFR 63 SUBPART UUU

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

### Process/Pollutant Information

**PROCESS NAME:** STARTUPS/SHUTDOWNS - SRU  
**Process Type:** 50.006 (Petroleum Refining Treating Processes (hydrotreating, acid gas removal, SRU's, etc.))  
**Primary Fuel:**  
**Throughput:**  
**Process Notes:** EQT0358 - OF THE SRU (SULFUR RECOVERY UNITS)

**POLLUTANT NAME:** Sulfur Dioxide (SO2)  
**CAS Number:** 7446-09-5  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SOx) )  
**Emission Limit 1:** SEE NOTE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) FOLLOW WRITTEN SOP, MINIMIZE DURATION AND FREQUENCY, PROPERLY DOCUMENT ALL SU/SD  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NO EMISSION LIMITS AVAILABLE

## Facility Information

<b>RBLC ID:</b>	AL-0246 (final)	<b>Date</b>
		<b>Determination</b>
		<b>Last Updated:</b> 03/02/2010
<b>Corporate/Company</b>	HUNT REFINERY CO.	<b>Permit Number:</b> X063A, X066A, X067A & X070A
<b>Name:</b>		
<b>Facility Name:</b>	TUSCALOOSA	<b>Permit Date:</b> 09/28/2009 (actual)
<b>Facility Contact:</b>	MS. CASEY FREDRICK 2053913376 CFREDRICK@HUNTREFINERY.COM	<b>FRS Number:</b> UNKNOWN
<b>Facility Description:</b>	THIS FACILITY IS A PETROLEUM REFINERY THAT PRODUCES NAPTHA,GASOLINE, DIESEL FUEL, JET FUEL, ASPHALT & ASPHALTPRODUCTS, PETROLEUM COKE AND OTHER PETROLEUL-DERIVED PRODUCTS.	<b>SIC Code:</b> 2911



<b>Permit Type:</b>	C: Modify process at existing facility	<b>NAICS Code:</b>	324110
<b>Permit URL:</b>			
<b>EPA Region:</b>	4	<b>COUNTRY:</b>	USA
<b>Facility County:</b>	TUSCALOOSA		
<b>Facility State:</b>	AL		
<b>Facility ZIP Code:</b>	354038995		
<b>Permit Issued By:</b>	ALABAMA DEPT OF ENVIRONMENTAL MGMT (Agency Name) MR. ANTHONY SMILEY(Agency Contact) (334) 271-7803 ASMILEYSR@ADEM.STATE.AL.US		
<b>Permit Notes:</b>	THESE PERMITS REPLACE AIR PERMIT # X063, X066, X067 & X070 ISSUED 5/20/08. THESE PERMITS WERE MODIFIED TO ALLOW HUNT TO CONTINUE USING AN EXISTING HEATER, RATHER THAN A NEW HEATER, AS ORIGINALLY PROPOSED. ADDITIONALLY, HUNT REQUESTED THAT NOX LIMITS REQUIRED BY EPA CONSENT DEDREE # CV-07-P-1777W BE INCORPORATED, ALONG WITH ALL APPLICABLE REQUIREMENTS OF 40CFR 60 SUPPORT J(A). SEE RBLIC CODE # AL-0242 FOR FURTHER INFORMATION. ADDITION INFORMATION, THE NAICS CODE IS 324110.		

Process/Pollutant Information
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<b>PROCESS NAME:</b>	COOLING TOWER
<b>Process Type:</b>	50.007 (Petroleum Refining Equipment Leaks/Fugitive Emissions)
<b>Primary Fuel:</b>	N/A
<b>Throughput:</b>	
<b>Process Notes:</b>	(1) COOLING TOWER AT THE DELAYED COKER

<b>POLLUTANT NAME:</b>	Particulate matter, total (TPM)
<b>CAS Number:</b>	PM
<b>Test Method:</b>	Unspecified
<b>Pollutant Group(s):</b>	( Particulate Matter (PM) )
<b>Emission Limit 1:</b>	0.4000 T/YR PM10 PROJECTED EMISSIONS FROM APPLICATION
<b>Emission Limit 2:</b>	1.1000 T/YR VOC PROJECTED EMISSIONS FROM APPLICATION
<b>Standard Emission:</b>	
<b>Did factors, other then air pollution technology considerations influence the BACT decisions:</b>	U
<b>Case-by-Case Basis:</b>	BACT-PSD
<b>Other Applicable Requirements:</b>	MACT
<b>Control Method:</b>	(A) DRIFT ELIMINATORS WILL BE INSTALLED, NOT MINIMIZE EMISSIONS.
<b>Est. % Efficiency:</b>	
<b>Compliance Verified:</b>	Unknown

**Pollutant/Compliance Notes:** EMISSIONS WILL BE CONTROLLED PER 40CFR 63 SUBPART CC.

### Process/Pollutant Information

**PROCESS** NINE PROCESS HEATERS IN FOUR PROCESS UNITS

**NAME:**

**Process Type:** 50.003 (Petroleum Refining Conversion Processes (cracking, reforming, etc.))

**Primary** REFINERY GAS

**Fuel:**

**Throughput:**

**Process** HEATER#-HEATER DESCRIPT-NGULNB-CEMS- PROCESS UNIT PREHEATER COKER BA-601M - 57MMBTU/HR - YES - NO -DELAY

**Notes:** COKER BA-602M - 49.4MMBTU/H - YES - NO -DELAY COKER COKER HEATER BA-603M - 198MMBTU/HR - YES - YES -DELAY COKER  
HYDROCRACKER HD-H-3401-34.7MMBTU/HR - YES - YES- HYDROCRACKER HD-H-3402-98.3MMBTU/HR - YES - YES-  
HYDROCRACKER CCR HEATER CR-H-3801-69.3MMBTU/HR - YES - YES - CCR CR-H-3802-78.2MMBTU/HR - YES - YES - CCR  
CR-H-3803-60.9MMBTU/HR - YES - YES - CCR HPZ-H-3600-254MMBTU/HR - YES - YES -#2 HYDROPLANT PLANT HEATER

**POLLUTANT NAME:** Nitrogen Oxides (NOx)

**CAS Number:** 10102

**Test Method:** Unspecified

**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )

**Emission Limit 1:** 0.0250 LB/MMBTU ALL EXCEPT HPZ-H-3600

**Emission Limit 2:** 0.0350 LB/MMBTU HPZ-H-3600

**Standard Emission:**

**Did factors, other then air pollution technology considerations influence the BACT decisions:** Y

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OTHER , NSPS

**Control Method:** (P) NEXT GENERATION ULTRA-LOW NOX BURNERS (NGULNB)

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** LIMITS FOR THESE UNITS WERE ALSO SELECTED TO COMPLY WITH THE REQUIREMENTS OF  
EPA CONSENT DECREE #CV-07-P-1777W.

**POLLUTANT NAME:** Particulate matter, total (TPM)

**CAS Number:** PM

**Test Method:** Unspecified

**Pollutant Group(s):** ( Particulate Matter (PM) )  
**Emission Limit 1:** 0.0075 LB/MMBTU PM  
**Emission Limit 2:** 0.0054 LB/MMBTU VOC  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** N  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** N/A  
**Control Method:** (N)  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

Process/Pollutant Information
-------------------------------

**PROCESS NAME:** TWO PROCESS HEATERS IN TWO PROCESS UNITS  
**Process Type:** 50.003 (Petroleum Refining Conversion Processes (cracking, reforming, etc.))  
**Primary Fuel:** REFINERY GAS  
**Throughput:**  
**Process Notes:** AFFECTED UNITS: BA-675-32.4MMBTU/H

**POLLUTANT NAME:** Nonprecursor Organic Compounds  
**CAS Number:**  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Organic Compounds (all) , Organic Non-HAP Compounds )  
**Emission Limit 1:** 0.2000 LB/H BA-675  
**Emission Limit 2:** 0.3000 LB/H HS-301  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** N  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** N/A  
**Control Method:** (N)  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Nitrogen Oxides (NOx)  
**CAS Number:** 10102  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )  
**Emission Limit 1:** 4.7000 LB/H BA-675  
**Emission Limit 2:** 4.5000 LB/H HS-301  
**Standard Emission:**  
**Did factors, other then air pollution technology considerations influence the BACT decisions:** N  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** N/A  
**Control Method:** (N)  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** HOT OIL HEATER AND HS-301-45.4MMBTU/HR CCR HEATER

## Facility Information

<b>RBLC ID:</b>	LA-0222 (final)	<b>Date</b>	
		<b>Determination</b>	
		<b>Last Updated:</b>	01/12/2010
<b>Corporate/Company</b>	CHALMETTE REFINING, LLC	<b>Permit</b>	PSD-LA-199(M-8)
<b>Name:</b>		<b>Number:</b>	
<b>Facility Name:</b>	CHALMETTE REFINERY	<b>Permit Date:</b>	09/15/2009 (actual)
<b>Facility Contact:</b>	CHARLES KOMINAS 5042811212 CHARLIE.KOMINAS@EXXONMOBIL.COM	<b>FRS Number:</b>	110029511758
<b>Facility Description:</b>	PERMIT IS FOR THE THERMAL DE-NOX PROJECT TO REDUCE NOX EMISSIONS FROM THE FCCU AS REQUIRED BY A FEDERAL CONSENT DECREE. PROJECT RESULTED IN A SIGNIFICANT COLLATERAL INCREASE IN CO EMISSIONS.	<b>SIC Code:</b>	2911
<b>Permit Type:</b>	C: Modify process at existing facility	<b>NAICS Code:</b>	324110
<b>Permit URL:</b>		<b>COUNTRY:</b>	USA
<b>EPA Region:</b>	6		
<b>Facility County:</b>	ST. BERNARD		
<b>Facility State:</b>	LA		
<b>Facility ZIP Code:</b>	70044		

**Permit Issued By:** LOUISIANA DEPARTMENT OF ENV QUALITY (Agency Name)  
MR. KEITH JORDAN(Agency Contact) (225)219-3613 KEITH.JORDAN@LA.GOV

**Other Agency Contact** PERMIT WRITER: MR. SYED QUADRI, (225) 219-3181

**Info:**

**Permit Notes:** WITH THIS MODIFICATION, FACILITY PROPOSED NOT TO INSTALL ULTRA-LOW NOX BURNERS ON NO. 2 HOT OIL HEATER (F-1105), EMISSION POINT 14, AS PERMITTED EARLIER; INSTEAD FACILITY PROPOSED TO SHUTDOWN NO. 2 ORTHO REBOILER (F-3001), EMISSION POINT 8A/B. WITH THESE CHANGES THE FACILITY SHALL CONTINUE TO MEET THE NOX REDUCTION REQUIREMENTS PER THE CONSENT DECREE (DATE OF ENTRY APRIL 26, 2006). BACT WAS NOT REEVALUATED; PREVIOUS BACT DETERMINATION FOR CO FOR THE FCCU IS STILL VALID.

## Process/Pollutant Information

**PROCESS NAME:** FLUIDIZED CATALYTIC CRACKING UNIT (FCCU)

**Process Type:** 50.003 (Petroleum Refining Conversion Processes (cracking, reforming, etc.))

**Primary Fuel:**

**Throughput:**

**Process Notes:**

**POLLUTANT NAME:** Carbon Monoxide

**CAS Number:** 630-08-0

**Test Method:** Unspecified

**Pollutant Group(s):** ( InOrganic Compounds )

**Emission Limit 1:** 732.8000 T/YR ANNUAL MAXIMUM

**Emission Limit 2:** 500.0000 PPMV @ 0% O2 1-HOUR AVERAGE\*

**Standard Emission:** 300.0000 PPMV @ 0% O2 365-DAY ROLLING AVERAGE

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** NSPS , OPERATING PERMIT

**Control Method:** (P) FULL BURN MODE OPERATION AND GOOD COMBUSTION PRACTICES

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** \*HOURLY MAXIMUM = 300.25 LB/H

## Facility Information

<b>RBLC ID:</b>	OH-0329 (final)	<b>Date</b>	
		<b>Determination</b>	
		<b>Last Updated:</b>	11/06/2009
<b>Corporate/Company</b>	BP PRODUCTS, NORTH AMERICA INC.	<b>Permit Number:</b>	P0103694
<b>Name:</b>			
<b>Facility Name:</b>	BP-HUSKY REFINING LLC	<b>Permit Date:</b>	08/07/2009 (actual)
<b>Facility Contact:</b>	ALLEN ELLETT 4196976064 ALLEN.ELLETT@BP.COM	<b>FRS Number:</b>	UNKNOWN
<b>Facility Description:</b>	REFINERY PROCESSING CRUDE OILS INTO PETROLEUM PRODUCTS INCLUDING: GASOLINE, DIESEL FUEL, CO2, SULFUR, KEROSENE, PROPYLENE, LPG, GASOLINE, JET TURBINE FUEL, PETROLEUM COKE, AVIATION GASOLINE, ASPHALT, AND HEATING OIL.	<b>SIC Code:</b>	2911
<b>Permit Type:</b>	D: Both B (Add new process to existing facility) &C (Modify process at existing facility)	<b>NAICS Code:</b>	325110
<b>Permit URL:</b>			
<b>EPA Region:</b>	5	<b>COUNTRY:</b>	USA
<b>Facility County:</b>	LUCAS		
<b>Facility State:</b>	OH		
<b>Facility ZIP Code:</b>	43616		
<b>Permit Issued By:</b>	OHIO ENVIRONMENTAL PROTECTION AGENCY (Agency Name) MS. CHERYL SUTTMAN(Agency Contact) (614)644-3617 CHERYL.SUTTMAN@EPA.STATE.OH.US		
<b>Permit Notes:</b>	REPLACING 2 EXISTING NAPHTHA REFORMERS WITH A REFORMER (INCLUDES NAPHTHA SPLITTER AND DEBUTANIZER COLUMNS) HAVING THE CAPACITY OF THE TWO; INSTALLING A PROCESS HEATER AND A BENZENE SATURATION UNIT. BP HAS CHOSEN NOT TO NET-OUT OF PSD FOR PM, SO THIS APPLICATION HAS BEEN PROCESSED AS PSD FOR PM10/2.5. SHUTDOWN OF OLD REFORMERS AND OTHER SOURCES PROVIDES A DECREASE IN FACILITYWIDE EMISSIONS, WITH ONLY AN INCREASE IN SO2 AND VOCs. MODIFICATION TO APPLICATION RECEIVED ON 2/25/09.		

### Process/Pollutant Information

<b>PROCESS</b>	REFORMER HEATER
<b>NAME:</b>	
<b>Process Type:</b>	50.003 (Petroleum Refining Conversion Processes (cracking, reforming, etc.))
<b>Primary Fuel:</b>	REFINERY FUEL GAS
<b>Throughput:</b>	519.00 MMBTU/H
<b>Process Notes:</b>	APPLICABLE FEDERAL REQUIREMENTS: PART 63 SUBPART DDDDD CASE-BYCASE MACT; PART 60 SUBPART JA FOR SO2, H2S, AND NOX.

**POLLUTANT NAME:** Particulate matter, total < 10 µ (TPM10)

**CAS Number:** PM  
**Test Method:** EPA/OAR OTM 27 and 28  
**Pollutant Group(s):** ( Particulate Matter (PM) )  
**Emission Limit 1:** 3.9000 LB/H  
**Emission Limit 2:** 16.9400 T/YR PER ROLLING 12 MONTHS  
**Standard Emission:** 7.6000 LB/MMBTU AP-42 FACTOR  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** SIP  
**Control Method:** (N) NO ADD ON CONTROLS WERE REASONABLY COST-EFFECTIVE  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Nitrogen Oxides (NOx)  
**CAS Number:** 10102  
**Test Method:** EPA/OAR Mthd 7  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )  
**Emission Limit 1:** 23.4000 LB/H  
**Emission Limit 2:** 79.5600 T/YR PER ROLLING 12 MONTHS  
**Standard Emission:** 40.0000 PPMV DRY, 0% EXCESS AIR, 24-HR ROLLING AVG.  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** N/A  
**Other Applicable Requirements:** NSPS , SIP  
**Control Method:** (N)  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** 40 PPMV ON A DRY BASIS, CORRECTED TO 0% O2, ON A 24-HOUR ROLLING AVERAGE BASIS. IF REQUIRED COMPLIANCE SHALL BE DEMONSTRATED BASED ON THE METHODS OUTLINED IN 40 CFR 60.104A(I), IN PART 60, SUBPART JA. CEM FOR NOX AND O2. WITHIN 60 DAYS OF ACHIEVING THE MAXIMUM PRODUCTION RATE, BUT NOT LATER THAN 180 DAYS OF STARTUP, SHALL CONDUCT STACK TEST USING METHOD 7, 7A, 7C, 7D, OR 7E.

**POLLUTANT NAME:** Sulfur Dioxide (SO2)  
**CAS Number:** 7446-09-5

**Test Method:** EPA/OAR Mthd 6  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SOx) )  
**Emission Limit 1:** 15.5200 LB/H  
**Emission Limit 2:** 38.0000 T/YR PER ROLLING 12 MONTHS  
**Standard Emission:** 20.0000 PPMV DRY, 0% EXCESS AIR, 3-HR ROLLING AVG.  
**Did factors, other then air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** N/A  
**Other Applicable Requirements:** NSPS , SIP  
**Control Method:** (N)  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** 20 PPMV ON A DRY BASIS, CORRECTED TO 0% EXCESS AIR, ON A 3-HOUR ROLLING AVERAGE BASIS. ADDITIONAL LIMIT: 8 PPMV ON A DRY BASIS, CORRECTED TO 0% EXCESS AIR, ON A 365-SUCCESSIVE DAY ROLLING AVERAGE BASIS. IF REQUIRED COMPLIANCE SHALL BE DEMONSTRATED BASED ON THE METHODS OUTLINED IN 40 CFR 60.104A(J), IN PART 60, SUBPART JA. CEM FOR EITHER SO2 OR H2S AND O2. WITHIN 60 DAYS OF ACHIEVING THE MAXIMUM PRODUCTION RATE, BUT NOT LATER THAN 180 DAYS OF STARTUP, SHALL CONDUCT STACK TEST USING METHOD 6, 6A, OR 6C.

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** EPA/OAR Mthd 10  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 18.6000 LB/H  
**Emission Limit 2:** 81.6100 T/YR PER ROLLING 12 MONTHS  
**Standard Emission:**  
**Did factors, other then air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** Other Case-by-Case  
**Other Applicable Requirements:** MACT  
**Control Method:** (N)  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** CO MAY BE SUBJECT TO A CASE-BY-CASE MACT FOR THE VACATED SUBPART DDDDD AS A PROCESS HEATER, IF DETERMINED SO THE PERMIT WILL BE MODIFIED. IF REQUIRED, COMPLIANCE WILL BE DEMONSTRATED USING METHOD 10.



**POLLUTANT NAME:** Volatile Organic Compounds (VOC)  
**CAS Number:** VOC  
**Test Method:** EPA/OAR Mthd 25  
**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )  
**Emission Limit 1:** 2.8000 LB/H  
**Emission Limit 2:** 12.2800 T/YR PER ROLLING 12 MONTHS  
**Standard Emission:** 5.5000 LB/MMSCF AP-42 FACTOR  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** N/A  
**Other Applicable Requirements:** SIP  
**Control Method:** (N)  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** IF REQUIRED COMPLIANCE WILL BE DEMONSTRATED USING METHOD 25.

**POLLUTANT NAME:** Visible Emissions (VE)  
**CAS Number:** VE  
**Test Method:** EPA/OAR Mthd 9  
**Pollutant Group(s):**  
**Emission Limit 1:** 20.0000 % OPACITY AS A 6-MINUTE AVERAGE, EXCEPT PER RULE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** N/A  
**Other Applicable Requirements:** SIP  
**Control Method:** (N)  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** EXCEPT AS PROVIDED BY OHIO RULE: MAY EXCEED 20% OPACITY, AS A 6-MINUTE AVERAGE, FOR NOT MORE THAN 6 CONSECUTIVE MINUTES IN ANY 60 MINUTES, BUT SHALL NOT EXCEED 60% OPACITY AS A 6-MINUTE AVERAGE AT ANY TIME. IF REQUIRED METHOD 9.

**PROCESS** REFORMER PROCESS UNIT

**NAME:**

**Process Type:** 50.003 (Petroleum Refining Conversion Processes (cracking, reforming, etc.))

**Primary Fuel:**

**Throughput:** 42000.00 BBL/D

**Process Notes:** NAPHTHA SPLITTER, DEBUTANIZER, RECYCLE AND NET HYDROGEN GAS COMPRESSORS, DRUMS AND EXCHANGERS. END PRODUCT HIGH OCTANE REFORMATES AND HYDROGEN.

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)

**CAS Number:** VOC

**Test Method:** EPA/OAR Mthd 25

**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )

**Emission Limit 1:** 0.1600 LB/H

**Emission Limit 2:** 0.7000 T/YR

**Standard Emission:** 20.0000 PPMV DRY BASIS AS HEXANE, CORRECT TO 3% O2

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** N/A

**Other Applicable Requirements:** SIP , NSPS , MACT

**Control Method:** (A) REFINERY FLARE AND AND CATALYTIC CONVERTER

**Est. % Efficiency:** 98.000

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** ADDITIONAL LIMIT FOR FUGITIVE VOC FROM EQUIPMENT LEAKS, WHICH SHALL NOT EXCEED 10.79 TONS/YR. SUBJECT TO PART 63, SUBPART UUU, REQUIRES EMISSION TESTING, TABLE 18, USING METHOD 25. SUBJECT TO EQUIPMENT LEAKS IN PART 60 SUBPARTS GGGA AND VVA; AND PART 63 SUBPART CC REFINERY FLARE SUBJET TO PART 60, SUBPART JA. DEBUTANIZER TOWER SUBJECT TO PART 60, SUBPART NNN. PER PART 63 SUBPART UUU: DURING INITIAL CATALYST DEPRESSURING AND PURGING BEFORE COKE BURN-OFF MUST REDUCE NONMETHANE TOC FROM PROCESS VENT BY 98% BY WT. OR TO 20 PPMV (ABOVE) WHICHEVER IS LESS STRINGENT.

**POLLUTANT NAME:** Hydrochloric Acid

**CAS Number:** 7647-01-0

**Test Method:** EPA/OAR Mthd 26

**Pollutant Group(s):** ( Acid Gasses/Mist , Hazardous Air Pollutants (HAP) , InOrganic Compounds , Particulate Matter (PM) )

**Emission Limit 1:** 10.0000 PPMV DRY BASIS, CORRECT TO 3% O2

**Emission Limit 2:**

**Standard Emission:****Did factors, other than air pollution technology considerations influence the BACT decisions:** U**Case-by-Case Basis:** MACT**Other Applicable Requirements:** SIP**Control Method:** (A) CHLORSORB SYSTEM AND CATALYTIC CONVERTER**Est. % Efficiency:** 97.000**Compliance Verified:** Unknown**Pollutant/Compliance Notes:** PER PART 63 SUBPART: DURING COKE BURN-OFF AND CATALYST REGENERATION, REDUCE UNCONTROLLED EMISSIONS OF HCL BY 97% BY WEIGHT OR TO 10 PPMV (ABOVE) FROM THE PROCESS VENTS FROM COKE BURN-OFF AND CATALYST REJUVENATION OPERATIONS.

Process/Pollutant Information
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**PROCESS NAME:** BENZENE SATURATION UNIT**Process Type:** 50.003 (Petroleum Refining Conversion Processes (cracking, reforming, etc.))**Primary Fuel:****Throughput:** 176880.00 LB/H**Process Notes:** FULLY ENCLOSED CATALYTIC PROCESS WITH NO FIRED HEATER.**POLLUTANT NAME:** Volatile Organic Compounds (VOC)**CAS Number:** VOC**Test Method:** Unspecified**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )**Emission Limit 1:** 0.4000 LB/H**Emission Limit 2:** 1.7700 T/YR**Standard Emission:****Did factors, other than air pollution technology considerations influence the BACT decisions:** U**Case-by-Case Basis:** MACT**Other Applicable Requirements:** NSPS , SIP**Control Method:** (N)**Est. % Efficiency:****Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** THE ABOVE LIMITS ARE FROM THE PERMIT APPLICATION AND WERE NOT PUT IN THE PERMIT. APPLICABLE FEDERAL RULES: PART 63 SUBPART CC AND PART 60 SUBPART GGGA, BOTH EQUIPMENT LEAK PROVISIONS. SUBPART VV TEST METHOD PROCEDURES. COMPRESSORS ARE IN HYDROGEN SERVICE.

## Facility Information

<b>RBLC ID:</b>	TX-0539 (final)	<b>Date Determination</b>	
<b>Corporate/Company Name:</b>	TOTAL REFINING - PORT ARTHUR	<b>Last Updated:</b>	11/06/2009
<b>Facility Name:</b>	TOTAL PORT ARTHUR - SRU AND CRUDE HANDLING	<b>Permit Number:</b>	PSD-TX-1073M1
<b>Facility Contact:</b>	MR. JEFF BAKER 4099636828 JEFF.BAKER@TOTAL.COM	<b>Permit Date:</b>	07/22/2009 (actual)
<b>Facility Description:</b>		<b>FRS Number:</b>	UNKNOWN
<b>Permit Type:</b>	A: New/Greenfield Facility	<b>SIC Code:</b>	2911
<b>Permit URL:</b>		<b>NAICS Code:</b>	324110
<b>EPA Region:</b>	6	<b>COUNTRY:</b>	USA
<b>Facility County:</b>	JEFFERSON		
<b>Facility State:</b>	TX		
<b>Facility ZIP Code:</b>	77641		
<b>Permit Issued By:</b>	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) (Agency Name) RANDY HAMILTON(Agency Contact) (512) 239-1512 RHAMILTO@TCEQ.STATE.TX.US		
<b>Other Agency Contact Info:</b>	MR. ROBERT HAVALDA, 512-239-1660		
<b>Permit Notes:</b>			

## Process/Pollutant Information

<b>PROCESS NAME:</b>	SRU INCINERATOR
<b>Process Type:</b>	50.006 (Petroleum Refining Treating Processes (hydrotreating, acid gas removal, SRU's, etc.))
<b>Primary Fuel:</b>	REFINERY FUEL GAS
<b>Throughput:</b>	
<b>Process Notes:</b>	TWO SRU INCINERATORS

**POLLUTANT NAME:** Carbon Monoxide

**CAS Number:** 630-08-0

**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 39.5300 LB/H  
**Emission Limit 2:** 36.8500 T/YR  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** Unknown  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OTHER  
**Control Method:** (P) GOOD BURNER TECHNOLOGY  
**Est. % Efficiency:**  
**Compliance Verified:** Yes  
**Pollutant/Compliance Notes:** LIMITS LISTED ARE FOR EACH UNIT.

**POLLUTANT NAME:** Sulfur Dioxide (SO<sub>2</sub>)  
**CAS Number:** 7446-09-5  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SO<sub>x</sub>) )  
**Emission Limit 1:** 55.3100 LB/H  
**Emission Limit 2:** 136.6600 T/YR  
**Standard Emission:** 250.0000 PPM HOURLY AVERAGE ON A DRY AND AIR FREE BAS  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** N  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** NSPS  
**Control Method:** (A) TAIL GAS INCINERATOR  
**Est. % Efficiency:** 99.800  
**Compliance Verified:** Yes  
**Pollutant/Compliance Notes:** LIMITS LISTED ARE FOR EACH UNIT.

**POLLUTANT NAME:** Particulate matter, filterable < 10 μ (FPM10)  
**CAS Number:** PM  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Particulate Matter (PM) )  
**Emission Limit 1:** 0.6000 LB/H  
**Emission Limit 2:** 1.3600 T/YR

**Standard Emission:****Did factors, other than air pollution technology considerations influence the BACT decisions:** Unknown**Case-by-Case Basis:** BACT-PSD**Other Applicable Requirements:** OTHER**Control Method:** (P) GOOD BURNER TECHNOLOGY**Est. % Efficiency:****Compliance Verified:** Unknown**Pollutant/Compliance Notes:** LIMITS LISTED ARE FOR EACH UNIT.

Process/Pollutant Information
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**PROCESS NAME:** COKER UNIT HEATERS**Process Type:** 50.003 (Petroleum Refining Conversion Processes (cracking, reforming, etc.))**Primary Fuel:** FUEL GAS**Throughput:** 211.00 MMBTU/H**Process Notes:** BTU RATING IS FOR EACH UNIT.**POLLUTANT NAME:** Carbon Monoxide**CAS Number:** 630-08-0**Test Method:** Unspecified**Pollutant Group(s):** ( InOrganic Compounds )**Emission Limit 1:** 14.6800 LB/H**Emission Limit 2:** 25.1000 T/YR**Standard Emission:** 50.0000 PPMVD HOURLY AT 3 PERCENT OXYGEN**Did factors, other than air pollution technology considerations influence the BACT decisions:** Unknown**Case-by-Case Basis:** BACT-PSD**Other Applicable Requirements:** OTHER**Control Method:** (P) GOOD BURNER TECHNOLOGY**Est. % Efficiency:****Compliance Verified:** Yes**Pollutant/Compliance Notes:** EMISSIONS LISTED ARE FOR EACH UNIT.**POLLUTANT NAME:** Particulate matter, filterable < 10 µ (FPM10)**CAS Number:** PM

**Test Method:** Unspecified  
**Pollutant Group(s):** ( Particulate Matter (PM) )  
**Emission Limit 1:** 1.5700 LB/H  
**Emission Limit 2:** 5.3500 T/YR  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** N  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OTHER  
**Control Method:** (P) GOOD BURNER TECHNOLOGY  
**Est. % Efficiency:**  
**Compliance Verified:** No  
**Pollutant/Compliance Notes:** EMISSIONS LISTED ARE FOR EACH UNIT.

**POLLUTANT NAME:** Sulfur Dioxide (SO2)  
**CAS Number:** 7446-09-5  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SOx) )  
**Emission Limit 1:** 5.0600 LB/H  
**Emission Limit 2:** 8.0700 T/YR  
**Standard Emission:** 75.0000 PPMV ANNUAL AVERAGE H2S  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** N  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OTHER  
**Control Method:** (P) GOOD BURNER TECHNOLOGY  
**Est. % Efficiency:**  
**Compliance Verified:** No  
**Pollutant/Compliance Notes:** EMISSION LIMITS LISTED ARE FOR EACH UNIT.

Process/Pollutant Information
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**PROCESS NAME:** VDU HEATER  
**Process Type:** 50.005 (Petroleum Refining Separation Processes (distillation and light ends recovery))  
**Primary Fuel:** FUEL GAS

**Throughput:** 99.00 MMBTU/H

**Process Notes:**

**POLLUTANT NAME:** Particulate matter, filterable < 10 µ (FPM10)

**CAS Number:** PM

**Test Method:** Unspecified

**Pollutant Group(s):** ( Particulate Matter (PM) )

**Emission Limit 1:** 0.7400 LB/H

**Emission Limit 2:** 2.9100 T/YR

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** Unknown

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OTHER

**Control Method:** (P) GOOD BURNER TECHNOLOGY

**Est. % Efficiency:**

**Compliance Verified:** No

**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Sulfur Dioxide (SO<sub>2</sub>)

**CAS Number:** 7446-09-5

**Test Method:** Unspecified

**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SO<sub>x</sub>) )

**Emission Limit 1:** 2.3700 LB/H

**Emission Limit 2:** 4.3900 T/YR

**Standard Emission:** 75.0000 PPMV ANNUAL AVERAGE H<sub>2</sub>S

**Did factors, other than air pollution technology considerations influence the BACT decisions:** Unknown

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OTHER

**Control Method:** (P) GOOD BURNER TECHNOLOGY

**Est. % Efficiency:**

**Compliance Verified:** No

**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Carbon Monoxide



**CAS Number:** 630-08-0  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 6.8900 LB/H  
**Emission Limit 2:** 13.6400 T/YR  
**Standard Emission:** 50.0000 PPMVD 3 PERCENT OXYGEN ON AN HOUR  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** Unknown  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OTHER  
**Control Method:** (P) GOOD BURNER TECHNOLOGY  
**Est. % Efficiency:**  
**Compliance Verified:** Yes  
**Pollutant/Compliance Notes:**

### Process/Pollutant Information

**PROCESS NAME:** KNHT CHARGE HEATER  
**Process Type:** 50.006 (Petroleum Refining Treating Processes (hydrotreating, acid gas removal, SRU's, etc.))  
**Primary Fuel:** FUEL GAS  
**Throughput:** 42.00 MMBTU/H  
**Process Notes:**

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 2.9200 LB/H  
**Emission Limit 2:** 1.6100 T/YR  
**Standard Emission:** 50.0000 PPMVD 3 PERCENT OXYGEN ON AN HOURLY BASIS  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** Unknown  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OTHER  
**Control Method:** (P) GOOD BURNER TECHNOLOGY  
**Est. % Efficiency:**

**Compliance Verified:** Yes

**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Sulfur Dioxide (SO<sub>2</sub>)

**CAS Number:** 7446-09-5

**Test Method:** Unspecified

**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SO<sub>x</sub>) )

**Emission Limit 1:** 1.0100 LB/H

**Emission Limit 2:** 0.5200 T/YR

**Standard Emission:** 75.0000 PPMV ANNUAL AVERAGE H<sub>2</sub>S

**Did factors, other than air pollution technology considerations influence the BACT decisions:** Unknown

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OTHER

**Control Method:** (P) GOOD BURNER TECHNOLOGY

**Est. % Efficiency:**

**Compliance Verified:** No

**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Particulate matter, filterable < 10 μ (FPM10)

**CAS Number:** PM

**Test Method:** Unspecified

**Pollutant Group(s):** ( Particulate Matter (PM) )

**Emission Limit 1:** 0.3100 LB/H

**Emission Limit 2:** 0.3400 T/YR

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** Unknown

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OTHER

**Control Method:** (P) GOOD BURNER TECHNOLOGY

**Est. % Efficiency:**

**Compliance Verified:** No

**Pollutant/Compliance Notes:**

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## Process/Pollutant Information

**PROCESS NAME:** DHT-3 CHARGE HEATER  
**Process Type:** 50.006 (Petroleum Refining Treating Processes (hydrotreating, acid gas removal, SRU's, etc.))  
**Primary Fuel:** FUEL GAS  
**Throughput:** 50.00 MMBTU/H

### Process Notes:

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 3.4800 LB/H  
**Emission Limit 2:** 6.8900 T/YR  
**Standard Emission:** 50.0000 PPMVD 3 PERCENT OXYGEN ON AN HOURLY BASIS  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** Unknown  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OTHER  
**Control Method:** (P) GOOD BURNER TECHNOLOGY  
**Est. % Efficiency:**  
**Compliance Verified:** Yes  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Sulfur Dioxide (SO2)  
**CAS Number:** 7446-09-5  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SOx) )  
**Emission Limit 1:** 1.2000 LB/H  
**Emission Limit 2:** 2.2200 T/YR  
**Standard Emission:** 75.0000 PPMV ANNUAL AVERAGE H2S  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** Unknown  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OTHER  
**Control Method:** (P) GOOD BURNER TECHNOLOGY

**Est. % Efficiency:**

**Compliance Verified:** No

**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Particulate matter, filterable < 10 µ (FPM10)

**CAS Number:** PM

**Test Method:** Unspecified

**Pollutant Group(s):** ( Particulate Matter (PM) )

**Emission Limit 1:** 0.3700 LB/H

**Emission Limit 2:** 1.4700 T/YR

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** Unknown

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OTHER

**Control Method:** (P) GOOD BURNER TECHNOLOGY

**Est. % Efficiency:**

**Compliance Verified:** No

**Pollutant/Compliance Notes:**

## Facility Information

**RBLC ID:** LA-0197 (final)

**Corporate/Company Name:** CONOCOPHILLIPS CO

**Facility Name:** ALLIANCE REFINERY

**Facility Contact:** LAURENCE R. POCHE 5046563212

**Facility Description:** CLEAN FUELS PROJECT TO COMPLY WITH TIER 2 SULFUR STANDARDS. PROJECT INVOLVES CONSTRUCTION OF A CHARGE HEATER, A REBOILER, 3 INTERMEDIATE GASOLINE STORAGE TANKS, AND PIPING AND FUGITIVE COMPONENTS. ALSO, STEAM PRODUCTION FROM THE EXISTING BOILERS, COOLING TOWER RECIRCULATION RATE, SULFUR PRODUCTION AT THE SULFUR RECOVERY UNITS, AND WASTEWATER THROUGHPUT WILL ALSO INCREASE.

**Permit Type:** D: Both B (Add new process to existing facility) &C (Modify process at existing facility)

**Date**

**Determination**

**Last Updated:** 01/07/2010

**Permit** PSD-LA-696(M1)

**Number:**

**Permit Date:** 07/21/2009 (actual)

**FRS Number:** R6-LA-00147

**SIC Code:** 2911

**NAICS Code:** 324110

**Permit URL:****EPA Region:** 6**COUNTRY:** USA**Facility County:** PLAQUEMINES**Facility State:** LA**Facility ZIP Code:** 70037**Permit Issued By:** LOUISIANA DEPARTMENT OF ENV QUALITY (Agency Name)  
MR. KEITH JORDAN(Agency Contact) (225)219-3613 KEITH.JORDAN@LA.GOV**Other Agency Contact** PERMIT WRITER: CORBET MATHIS, 225-219-3180**Info:****Permit Notes:** H2S INCREASE = +0.75 TPY; H2SO4 INCREASE = +0.57 TPY PERMIT PSD-LA-696(M1), DATED JULY 21, 2009, REVISES FUGITIVE EMISSION LIMITS AND REMOVE A REBOILER AND THREE GAS TANKS.

Process/Pollutant Information
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**PROCESS NAME:** LOW SULFUR GASOLINE FEED HEATER NO. 1**Process Type:** 12.390 (Other Gaseous Fuel & Gaseous Fuel Mixtures)**Primary Fuel:** FUEL GAS**Throughput:** 138.12 MMBTU/H**Process Notes:** AVERAGE HEAT INPUT = 115.10 MMBTU/H**POLLUTANT NAME:** Volatile Organic Compounds (VOC)**CAS Number:** VOC**Test Method:** Unspecified**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )**Emission Limit 1:** 0.7400 LB/H HOURLY MAXIMUM**Emission Limit 2:** 2.7200 T/YR ANNUAL MAXIMUM**Standard Emission:****Did factors, other than air pollution technology considerations influence the BACT decisions:** U**Case-by-Case Basis:** BACT-PSD**Other Applicable Requirements:** OPERATING PERMIT , OPERATING PERMIT**Control Method:** (P) GOOD COMBUSTION PRACTICES AND GOOD ENGINEERING DESIGN**Est. % Efficiency:****Compliance Verified:** Unknown**Pollutant/Compliance Notes:** ADDITIONAL LIMIT: 0.0054 LB/MMBTU ANNUAL AVERAGE

**POLLUTANT NAME:** Nitrogen Oxides (NOx)  
**CAS Number:** 10102  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )  
**Emission Limit 1:** 5.5200 LB/H HOURLY MAXIMUM  
**Emission Limit 2:** 20.1700 T/YR ANNUAL MAXIMUM  
**Standard Emission:** 0.0400 LB/MMBTU ANNUAL AVERAGE  
**Did factors, other then air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) ULTRA LOW NOX BURNERS WITH INTERNAL FLUE GAS RECIRCULATION  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

Process/Pollutant Information
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**PROCESS NAME:** UNIT FUGITIVES  
**Process Type:** 50.007 (Petroleum Refining Equipment Leaks/Fugitive Emissions)  
**Primary Fuel:**  
**Throughput:**  
**Process Notes:** NO THROUGHPUT, FUGITIVE EMISSIONS

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)  
**CAS Number:** VOC  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )  
**Emission Limit 1:** 13.2200 LB/H HOURLY MAXIMUM  
**Emission Limit 2:** 57.8900 T/YR ANNUAL MAXIMUM  
**Standard Emission:**  
**Did factors, other then air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (P) LEAK DETECTION AND REPAIR PROGRAM - LOUISIANA REFINERY MACT DETERMINATION  
DATED JULY 26, 1994

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:**

## Facility Information

<b>RBLC ID:</b>	LA-0238 (final)	<b>Date Determination</b>	
		<b>Last Updated:</b>	01/07/2010
<b>Corporate/Company Name:</b>	CONOCOPHILLIPS COMPANY	<b>Permit Number:</b>	PSD-LA-75(M3)
<b>Facility Name:</b>	ALLIANCE REFINERY	<b>Permit Date:</b>	07/10/2009 (actual)
<b>Facility Contact:</b>	CHRIS CHANDLER 5046567711	<b>FRS Number:</b>	2207500003
<b>Facility Description:</b>	A PETROLEUM REFINERY IN BELLE CHASSE, LA.	<b>SIC Code:</b>	2911
<b>Permit Type:</b>	C: Modify process at existing facility	<b>NAICS Code:</b>	324110
<b>Permit URL:</b>			
<b>EPA Region:</b>	6	<b>COUNTRY:</b>	USA
<b>Facility County:</b>	PLAQUEMINES		
<b>Facility State:</b>	LA		
<b>Facility ZIP Code:</b>	70037		
<b>Permit Issued By:</b>	LOUISIANA DEPARTMENT OF ENV QUALITY (Agency Name) MR. KEITH JORDAN(Agency Contact) (225)219-3613 KEITH.JORDAN@LA.GOV		
<b>Other Agency Contact Info:</b>	PERMIT WRITER: CORBET MATHIS - PHONE: 225-219-3181		
<b>Permit Notes:</b>	PSD-LA-75 (OCTOBER 22, 1978): TO EXPAND THE FCCU CAPACITY FROM 78,000 TO 89,000 BPD. PSD-LA-75(M3): INCLUDING STARTUP SHUTDOWN EMISSIONS, RECONCILE SO2 AND CO EMISSIONS FROM HEATER AND BOILERS		

## Process/Pollutant Information

**PROCESS NAME:** FCCU REGEN VENT - SU/SD OPERATIONS

**Process Type:** 50.003 (Petroleum Refining Conversion Processes (cracking, reforming, etc.))

**Primary Fuel:**

**Throughput:** 89000.00 BBL/D

**Process Notes:**

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 16674.1797 LB/H HOURLY MAXIMUM  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (N)  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Sulfur Dioxide (SO<sub>2</sub>)  
**CAS Number:** 7446-09-5  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SO<sub>x</sub>) )  
**Emission Limit 1:** 1286.0000 LB/H HOURLY MAXIMUM  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) COMPLY WITH 40 CFR 60 SUBPART J  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

Process/Pollutant Information
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**PROCESS NAME:** FCCU FEED HEATER



**Process Type:** 12.310 (Natural Gas (includes propane and liquefied petroleum gas))  
**Primary Fuel:** REFINERY GAS  
**Throughput:** 181.70 MMBTU/H  
**Process Notes:**

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 0.5500 LB/H HOURLY MAXIMUM  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) EQUIPPED WITH VORTOMETRIC HIGH INTENSITY COMBUSTION UNIT  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Sulfur Dioxide (SO2)  
**CAS Number:** 7446-09-5  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SOx) )  
**Emission Limit 1:** 4.7900 LB/H HOURLY MAXIMUM  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) COMPLY WITH 40 CFR 60 SUBPART J  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

## Process/Pollutant Information

**PROCESS NAME:** CO BOILERS (2)  
**Process Type:** 11.310 (Natural Gas (includes propane and liquefied petroleum gas))  
**Primary Fuel:** REFINERY GAS  
**Throughput:** 831.30 MMBTU/H EACH  
**Process Notes:**

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 379.1000 LB/H HOURLY MAXIMUM  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) EQUIPPED WITH CORTOMETRIC HIGH INTENSITY COMBUSTION UNITS  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Sulfur Dioxide (SO2)  
**CAS Number:** 7446-09-5  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SOx) )  
**Emission Limit 1:** 1286.0000 LB/H HOURLY MAXIMUM  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:**

**Control Method:** (P) COMPLY WITH 40 CFR 60 SUBPART J  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

## Facility Information

<b>RBLC ID:</b>	MS-0089 (final)	<b>Date</b>	
		<b>Determination</b>	
		<b>Last Updated:</b>	05/05/2009
		<b>Permit Number:</b>	1280-00058
<b>Corporate/Company</b>	CHEVRON PRODUCTS COMPANY		
<b>Name:</b>			
<b>Facility Name:</b>	CHEVRON PRODUCTS COMPANY, PASCAGOULA REFINERY	<b>Permit Date:</b>	04/14/2009 (actual)
<b>Facility Contact:</b>	WES BECK 2289384858 WCBE@CHEVRONTEXACO.COM	<b>FRS Number:</b>	110000377477
<b>Facility Description:</b>	THE PASCAGOULA REFINERY REFINES 330,000 BARRELS PER OPERATING DAY OF CRUDE OIL INTO GASOLINE, DIESEL, JET FUEL, AND PETROCHEMICALS.	<b>SIC Code:</b>	2911
<b>Permit Type:</b>	D: Both B (Add new process to existing facility) & C (Modify process at existing facility)	<b>NAICS Code:</b>	325110
<b>Permit URL:</b>			
<b>EPA Region:</b>	4	<b>COUNTRY:</b>	USA
<b>Facility County:</b>	JACKSON		
<b>Facility State:</b>	MS		
<b>Facility ZIP Code:</b>	39581		
<b>Permit Issued By:</b>	MISSISSIPPI DEPT OF ENV QUALITY (Agency Name) MS. CARLA BROWN(Agency Contact) (601) 961-5235 CARLA_BROWN@DEQ.STATE.MS.US		
<b>Permit Notes:</b>	THE MODIFICATIONS INCLUDE TWO LARGE PROJECTS: 1) CONSTRUCT AND MODIFY EQUIPMENT TO PRODUCE 25,000 BPD OF BASE OIL AND 2) INCREASE SULFUR RECOVERY CAPACITY USING OXYGEN ENRICHMENT. THERE WERE MANY OTHER SMALL CAPITAL PROJECTS AND SHUTDOWN-RELATED PROJECTS INCLUDED THAT WILL OCCUR DURING THIS SAME TIME FRAME.		

## Process/Pollutant Information

**PROCESS NAME:** SULFUR RECOVERY UNITS II AND III (AO-004 AND AO-005)  
**Process Type:** 50.006 (Petroleum Refining Treating Processes (hydrotreating, acid gas removal, SRU's, etc.))  
**Primary Fuel:**

**Throughput:** 290.00 LTPD

**Process Notes:** SRU'S BEING MODIFIED FOR OXYGEN ENRICHMENT TO INCREASE THROUGHPUT.

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** EPA/OAR Mthd 10A  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 16.9200 LB/H 3-HR ROLLING AVERAGE  
**Emission Limit 2:** 49.4200 T/YR 12-MONTH ROLLING TOTAL  
**Standard Emission:** 100.0000 PPMVD @ 0% O2 30-DAY ROLLING AVERAGE  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:**  
**Control Method:** (A) TWO, LOW-NOX THERMAL OXIDIZERS  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** THE FACILITY WILL COMPLY USING A CO CEMS WITH ALL THREE LIMITS - PPMVD, LB/HR, AND TPY.

#### Process/Pollutant Information

**PROCESS NAME:** HYDROFINER FEED FURNACE (BK-261)  
**Process Type:** 13.300 (Gaseous Fuel & Gaseous Fuel Mixtures (<100 million BTU/H))  
**Primary Fuel:** REFINERY FUEL GAS  
**Throughput:** 70.00 MMBTU/H  
**Process Notes:** FURNACE MODIFIED TO USE INDUCED DRAFT FAN, NOT FORCED DRAFT.

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** EPA/OAR Mthd 10A  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 8.6500 LB/H 3-HR ROLLING AVERAGE  
**Emission Limit 2:** 11.3100 T/YR 12-MONTH ROLLING TOTAL  
**Standard Emission:** 50.0000 PPMVD @ 0% O2 30-DAY ROLLING AVERAGE

**Did factors, other then air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:**

**Control Method:** (P) LOW NOX BURNERS

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** WILL USE CO CEMS TO DEMONSTRATE COMPLIANCE WITH ALL THREE EMISSION LIMITS.

**POLLUTANT NAME:** Nitrogen Oxides (NOx)

**CAS Number:** 10102

**Test Method:** EPA/OAR Mthd 7

**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )

**Emission Limit 1:** 6.3000 LB/H 3-HR ROLLING AVERAGE

**Emission Limit 2:** 18.4000 T/YR 12-MONTH ROLLING TOTAL

**Standard Emission:** 0.0600 LB/MMBTU 30-DAY ROLLING AVERAGE

**Did factors, other then air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:**

**Control Method:** (P) LOW NOX BURNERS

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** WILL USE A NOX CEMS TO DEMONSTRATE COMPLIANCE WITH ALL THREE LIMITS. THEY ALREADY HAD A LOW NOX BURNER INSTALLED AND SHOWED THAT IT WOULD BE UNECONOMICAL TO UPGRADE THE BURNER TO GET EVEN LOWER NOX EMISSIONS.

## Process/Pollutant Information

**PROCESS NAME:** LUBE HYDROCRACKER FEED HEATER (CK-003)

**Process Type:** 13.300 (Gaseous Fuel & Gaseous Fuel Mixtures (100 million BTU/H))

**Primary Fuel:** REFINERY FUEL GAS

**Throughput:** 73.24 MMBTU/H

**Process Notes:** NEW HEATER FOR BASE OIL PLANT

**POLLUTANT NAME:** Carbon Monoxide

**CAS Number:** 630-08-0  
**Test Method:** EPA/OAR Mthd 10A  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 4.0600 LB/H 3-HR ROLLING AVERAGE  
**Emission Limit 2:** 11.8500 T/YR 12-MONTH ROLLING TOTAL  
**Standard Emission:** 50.0000 PPMVD @ 0% O2 30-DAY ROLLING AVERAGE  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:**  
**Control Method:** (P) ULTRA LOW NOX BURNERS  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** WILL USE A CO CEMS TO DEMONSTRATE COMPLIANCE WITH ALL LIMITS.

**POLLUTANT NAME:** Nitrogen Oxides (NOx)  
**CAS Number:** 10102  
**Test Method:** EPA/OAR Mthd 7  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )  
**Emission Limit 1:** 3.3000 LB/H 3-HR ROLLING AVERAGE  
**Emission Limit 2:** 9.6200 T/YR 12-MONTH ROLLING TOTAL  
**Standard Emission:** 0.0300 LB/MMBTU 30-DAY ROLLING AVERAGE  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** NSPS  
**Control Method:** (P) ULTRA LOW NOX BURNERS  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** WILL USE NOX CEMS TO DEMONSTRATE COMPLIANCE WITH ALL THREE LIMITS

Process/Pollutant Information
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**PROCESS NAME:** FEED PREPARATION UNIT VACUUM COLUMN FEED HEATER (CK-004)  
**Process Type:** 13.300 (Gaseous Fuel & Gaseous Fuel Mixtures (<100 million BTU/H))  
**Primary Fuel:** REFINERY FUEL GAS

**Throughput:** 73.95 MMBTU/H  
**Process Notes:** NEW HEATER IN BASE OIL PLANT

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** EPA/OAR Mthd 10A  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 7.3100 LB/H 3-HR ROLLING AVERAGE  
**Emission Limit 2:** 15.7300 T/YR 12-MONTH ROLLING TOTAL  
**Standard Emission:** 50.0000 PPMVD @ 0% O2 24-HR ROLLING AVERAGE  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:**  
**Control Method:** (P) ULTRA LOW NOX BURNERS  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** THERE ARE ACTUALLY TWO CO CONCENTRATION LIMITS: 50 PPMVD FOR OPERATING ABOVE 50% OF FIRED DUTY AND 400 PPMVD FOR OPERATING AT OR BELOW 50% FIRED DUTY. A CO CEMS WILL BE USED TO DEMONSTRATE COMPLIANCE WITH ALL LIMITS.

**POLLUTANT NAME:** Nitrogen Oxides (NOx)  
**CAS Number:** 10102  
**Test Method:** EPA/OAR Mthd 7  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )  
**Emission Limit 1:** 3.3300 LB/H 3-HR ROLLING AVERAGE  
**Emission Limit 2:** 9.7200 T/YR 12-MONTH ROLLING TOTAL  
**Standard Emission:** 0.0300 LB/MMBTU 30-DAY ROLLING AVERAGE  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** NSPS  
**Control Method:** (P) ULTRA LOW NOX BURNERS  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** A NOX CEMS WILL BE USED TO DEMONSTRATE COMPLIANCE WITH ALL THE LIMITS.

## Process/Pollutant Information

**PROCESS NAME:** IDW/HDF REACTOR FEED HEATER (CK-005)  
**Process Type:** 13.300 (Gaseous Fuel & Gaseous Fuel Mixtures (≤100 million BTU/H))  
**Primary Fuel:** REFINERY FUEL GAS  
**Throughput:** 54.53 MMBTU/H  
**Process Notes:** NEW HEATER IN BASE OILS PLANT

**POLLUTANT NAME:** Nitrogen Oxides (NOx)  
**CAS Number:** 10102  
**Test Method:** EPA/OAR Mthd 7  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )  
**Emission Limit 1:** 2.4500 LB/H 3-HR ROLLING AVERAGE  
**Emission Limit 2:** 7.1700 T/YR 12-MONTH ROLLING TOTAL  
**Standard Emission:** 0.0300 LB/MMBTU 30-DAY ROLLING AVERAGE  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** NSPS  
**Control Method:** (P) ULTRA LOW NOX BURNERS  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** WILL USE NOX CEMS TO DEMONSTRATE COMPLIANCE WITH ALL LIMITS.

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** EPA/OAR Mthd 10A  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 3.0200 LB/H 3-HR ROLLING AVERAGE  
**Emission Limit 2:** 8.8200 T/YR 12-MONTH ROLLING TOTAL  
**Standard Emission:** 50.0000 PPMVD @ 0% O2 30-DAY ROLLING AVERAGE  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:**  
**Control Method:** (P) ULTRA LOW NOX BURNERS



**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** WILL USE A CO CEMS TO DEMONSTRATE COMPLIANCE WITH ALL LIMITS.

### Process/Pollutant Information

**PROCESS NAME:** IDW/HDF VACUUM COLUMN FEED HEATER (CK-006)  
**Process Type:** 13.300 (Gaseous Fuel & Gaseous Fuel Mixtures (≥100 million BTU/H))  
**Primary Fuel:** REFINERY FUEL GAS  
**Throughput:** 51.05 MMBTU/H  
**Process Notes:** NEW HEATER IN BASE OILS PLANT.

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** EPA/OAR Mthd 10A  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 2.8300 LB/H 3-HR ROLLING AVERAGE  
**Emission Limit 2:** 8.3000 T/YR 12-MONTH ROLLING TOTAL  
**Standard Emission:** 50.0000 PPMVD @ 0% O<sub>2</sub> 30-DAY ROLLING AVERAGE  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:**  
**Control Method:** (P) ULTRA LOW NOX BURNERS  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** WILL USE CO CEMS TO DEMONSTRATE COMPLIANCE

**POLLUTANT NAME:** Nitrogen Oxides (NO<sub>x</sub>)  
**CAS Number:** 10102  
**Test Method:** EPA/OAR Mthd 7  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NO<sub>x</sub>) , Particulate Matter (PM) )  
**Emission Limit 1:** 2.3000 LB/H 3-HR ROLLING AVERAGE  
**Emission Limit 2:** 6.7100 T/YR 12-MONTH ROLLING TOTAL  
**Standard Emission:** 0.0300 LB/MMBTU 30-DAY ROLLING AVERAGE

**Did factors, other then air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** NSPS

**Control Method:** (P) ULTRA LOW NOX BURNERS

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** WILL USE A NOX CEMS TO DEMONSTRATE COMPLIANCE WITH ALL LIMITS.

## Process/Pollutant Information

**PROCESS** TAIL GAS TREATING UNITS FOR SULFUR RECOVERY UNITS IV, V, AND VI

**NAME:**

**Process Type:** 50.006 (Petroleum Refining Treating Processes (hydrotreating, acid gas removal, SRU's, etc.))

**Primary Fuel:**

**Throughput:** 1220.00 LTPD

**Process Notes:** MODIFYING EXISTING SRU'S WITH OXYGEN ENRICHMENT TO INCREASE CAPACITY AND ALSO WILL BE REPLACING EXISTING BEAVON-STRETFORD CONTROLS WITH TWO NEW H2S TAIL GAS ABSORBERS FOLLOWED BY TWO THERMAL OXIDIZERS.

**POLLUTANT NAME:** Carbon Monoxide

**CAS Number:** 630-08-0

**Test Method:** EPA/OAR Mthd 10A

**Pollutant Group(s):** ( InOrganic Compounds )

**Emission Limit 1:** 22.7500 LB/H 3-HR ROLLING AVERAGE

**Emission Limit 2:** 99.7000 T/YR 12-MONTH ROLLING TOTAL

**Standard Emission:** 65.0000 PPMVD @ 0% O2 30-DAY ROLLING AVERAGE

**Did factors, other then air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:**

**Control Method:** (A) TWO 55 MMBTU/HR THERMAL OXIDIZERS WITH LOW NOX BURNERS

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** WILL USE CO CEMS TO DEMONSTRATE COMPLIANCE WITH ALL LIMITS.

**POLLUTANT NAME:** Nitrogen Oxides (NOx)

**CAS Number:** 10102  
**Test Method:** EPA/OAR Mthd 7  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )  
**Emission Limit 1:** 6.6000 LB/H 3-HR ROLLING AVERAGE  
**Emission Limit 2:** 28.9100 T/YR 12-MONTH ROLLING TOTAL  
**Standard Emission:** 0.0600 LB/MMBTU 30-DAY ROLLING AVERAGE  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:**  
**Control Method:** (P) TWO 55 MMBTU/HR THERMAL OXIDIZERS WITH LOW NOX BURNERS  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** WILL USE A NOX CEMS TO DEMONSTRATE COMPLIANCE WITH ALL LIMITS.

## Facility Information

<b>RBLC ID:</b>	OH-0308 (final)	<b>Date</b>	
		<b>Determination</b>	
		<b>Last Updated:</b>	02/09/2010
<b>Corporate/Company</b>	SUNOCO, INC.	<b>Permit</b>	04-01447
<b>Name:</b>		<b>Number:</b>	
<b>Facility Name:</b>	SUN COMPANY, INC., TOLEDO REFINERY	<b>Permit Date:</b>	02/23/2009 (actual)
<b>Facility Contact:</b>	ELAINE MOORE 4106986847	<b>FRS Number:</b>	110004583512
<b>Facility Description:</b>	PETROLEUM REFINERY, INCREASE IN PRODUCTION FOR TWO FLUID CATALYTIC CRACKING UNITS (FCCU) AND TO MEET COMPLIANCE WITH A CONSENT DECREE FOR THE INSTALLATION OF AIR POLLUTION CONTROL EQUIPMENT. THIS PERMIT IS PSD FOR PM10 AND CO. THE FACILITY HAS NETTED-OUT OF NONATTAINMENT NEW SOURCE REVIEW FOR VOC EMISSIONS.	<b>SIC Code:</b>	2911
<b>Permit Type:</b>	D: Both B (Add new process to existing facility) & C (Modify process at existing facility)	<b>NAICS Code:</b>	324110
<b>Permit URL:</b>			
<b>EPA Region:</b>	5	<b>COUNTRY:</b>	USA
<b>Facility County:</b>	LUCAS		
<b>Facility State:</b>	OH		
<b>Facility ZIP Code:</b>	43616		

**Permit Issued By:** OHIO ENVIRONMENTAL PROTECTION AGENCY (Agency Name)  
MS. CHERYL SUTTMAN(Agency Contact) (614)644-3617 CHERYL.SUTTMAN@EPA.STATE.OH.US

**Permit Notes:** ON 1/14/10 A MODIFICATION WAS ISSUED TO ESTABLISH COMPLIANCE W/ THE CONTROL EFFICIENCY (99%) FOR CO AND 95% FOR PM10 FROM THE CRACKING UNIT: FOR CO THRU STACK DATA ANALYZERS FOR %O2, %CO2, %CO, AND FLOW RATE; FOR PM10 METHODS 201 AND 202 WHEN REQUIRED, IN PTI # P0105652. THE PERMIT DATED 2/23/09 WAS ISSUED TO MODIFY THE ORIGINAL PERMIT, #04-01447 ISSUED FINAL ON 9/29/06, TO REFLECT THE REVISED ESTIMATED EMISSIONS AND MODIFICATIONS TO MATCH THE ACTUAL SIZE OF THE EQUIPMENT INSTALLED, TO DATE. CONTINUOUS ON-SITE CONSTRUCTION TO PROCESS UNITS IS ANTICIPATED THROUGH APRIL OF 2013. THE NETTING BELOW HAS ALSO BEEN ADJUSTED.

### Process/Pollutant Information

**PROCESS** BOILER (2)

**NAME:**

**Process Type:** 11.390 (Other Gaseous Fuel & Gaseous Fuel Mixtures)

**Primary Fuel:** REFINERY FUEL GAS +

**Throughput:** 374.00 MMBTU/H

**Process Notes:** TWO BOILERS FIRED WITH REFINERY PROCESS GAS, NATURAL GAS, RESIDUAL #6 OIL, AND CO FROM FLUIDIZED CATALYTIC CRACKING UNIT; NEW LOW NOX BURNERS TO BE INSTALLED

**POLLUTANT NAME:** Particulate matter, filterable < 10  $\mu$  (FPM10)

**CAS Number:** PM

**Test Method:** Other

**Other Test Method:** METHOD 5

**Pollutant Group(s):** ( Particulate Matter (PM) )

**Emission Limit 1:** 2.5300 LB/H

**Emission Limit 2:** 11.1000 T/YR PER ROLLING 12 MONTHS

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** SIP

**Control Method:** (N) BOILERS ARE THE CONTROL

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** ABOVE EMISSIONS FOR EACH INDIVIDUAL BOILER (2). THESE BOILERS ARE OPERATED AS CONTROL FOR CO WHEN THE FLUID CATALYTIC CRACKING UNIT (FCCU) IS IN OPERATION. THE LIMITS ABOVE REPRESENT THE EMISSIONS FROM THESE BOILERS WHEN THE FCCU HAS A MALFUNCTION OR IS IN STARTUP/SHUTDOWN AND VENTED TO THE 2 BOILERS. THE BOILERS ALSO HAVE COMBINED EMISSION LIMITS SHARED WITH THE FCCU DURING NORMAL FCCU OPERATIONS, SEE THE FCCU PROCESS EMISSIONS. METHOD 5, IF REQUIRED.

**POLLUTANT NAME:** Sulfur Dioxide (SO<sub>2</sub>)  
**CAS Number:** 7446-09-5  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SO<sub>x</sub>) )  
**Emission Limit 1:** 9.1500 LB/H FROM EACH OF 2 BOILERS  
**Emission Limit 2:** 40.0600 T/YR PER ROLLING 12-MO.FROM EACH OF 2 BOILERS  
**Standard Emission:** 0.0270 LB/MMBTU FROM BOILERS OPERATING WITHOUT FCCU  
**Did factors, other then air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** N/A  
**Other Applicable Requirements:** SIP  
**Control Method:** (N) BOILERS ARE THE CONTROL  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

ABOVE EMISSIONS FOR EACH INDIVIDUAL BOILER (2). THESE BOILERS ARE OPERATED AS CONTROL FOR CO WHEN THE FLUID CATALYTIC CRACKING UNIT (FCCU) IS IN OPERATION. THE LIMITS ABOVE REPRESENT THE EMISSIONS FROM THESE BOILERS WHEN THE FCCU HAS A MALFUNCTION OR IS IN STARTUP/SHUTDOWN AND VENTED TO THE 2 BOILERS. THE BOILERS ALSO HAVE COMBINED EMISSION LIMITS SHARED WITH THE FCCU DURING NORMAL FCCU OPERATIONS, SEE THE FCCU PROCESS EMISSIONS.

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** EPA/OAR Mthd 10  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 28.0000 LB/H  
**Emission Limit 2:** 122.6400 T/YR PER ROLLING 12 MONTHS  
**Standard Emission:**  
**Did factors, other then air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** SIP

**Control Method:** (N) THE BOILERS ARE THE CONTROL

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** ABOVE EMISSIONS FOR EACH INDIVIDUAL BOILER (2). THESE BOILERS ARE OPERATED AS CONTROL FOR CO WHEN THE FLUID CATALYTIC CRACKING UNIT (FCCU) IS IN OPERATION. THE LIMITS ABOVE REPRESENT THE EMISSIONS FROM THESE BOILERS WHEN THE FCCU HAS A MALFUNCTION OR IS IN STARTUP/SHUTDOWN AND VENTED TO THE 2 BOILERS. THE BOILERS ALSO HAVE COMBINED EMISSION LIMITS SHARED WITH THE FCCU DURING NORMAL FCCU OPERATIONS, SEE THE FCCU PROCESS EMISSIONS. METHOD 10, IF REQUIRED.

**POLLUTANT NAME:** Nitrogen Oxides (NO<sub>x</sub>)

**CAS Number:** 10102

**Test Method:** Unspecified

**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NO<sub>x</sub>) , Particulate Matter (PM) )

**Emission Limit 1:** 13.6000 LB/H

**Emission Limit 2:** 59.5700 T/YR PER ROLLING 12 MONTHS

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** N/A

**Other Applicable Requirements:** SIP

**Control Method:** (P) LOW NOX BURNERS

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** ABOVE EMISSIONS FOR EACH INDIVIDUAL BOILER (2). THESE BOILERS ARE OPERATED AS CONTROL FOR CO WHEN THE FLUID CATALYTIC CRACKING UNIT (FCCU) IS IN OPERATION. THE LIMITS ABOVE REPRESENT THE EMISSIONS FROM THESE BOILERS WHEN THE FCCU HAS A MALFUNCTION OR IS IN STARTUP/SHUTDOWN AND VENTED TO THE 2 BOILERS. THE BOILERS ALSO HAVE COMBINED EMISSION LIMITS SHARED WITH THE FCCU DURING NORMAL FCCU OPERATIONS, SEE THE FCCU PROCESS EMISSIONS.

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)

**CAS Number:** VOC

**Test Method:** Unspecified

**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )

**Emission Limit 1:** 1.8300 LB/H

**Emission Limit 2:** 8.0300 T/YR PER ROLLING 12 MONTHS

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** N/A

**Other Applicable Requirements:** SIP

**Control Method:** (N) THE BOILERS ARE THE CONTROL

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** ABOVE EMISSIONS FOR EACH INDIVIDUAL BOILER (2). THESE BOILERS ARE OPERATED AS CONTROL FOR CO WHEN THE FLUID CATALYTIC CRACKING UNIT (FCCU) IS IN OPERATION. THE LIMITS ABOVE REPRESENT THE EMISSIONS FROM THESE BOILERS WHEN THE FCCU HAS A MALFUNCTION OR IS IN STARTUP/SHUTDOWN AND VENTED TO THE 2 BOILERS. THE BOILERS ALSO HAVE COMBINED EMISSION LIMITS SHARED WITH THE FCCU DURING NORMAL FCCU OPERATIONS, SEE THE FCCU PROCESS EMISSIONS.

**POLLUTANT NAME:** Visible Emissions (VE)

**CAS Number:** VE

**Test Method:** EPA/OAR Mthd 9

**Pollutant Group(s):**

**Emission Limit 1:** 20.0000 % OPACITY AS A 6-MINUTE AVERAGE, EXCEPT PER RULE

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** N/A

**Other Applicable Requirements:** SIP

**Control Method:** (N) THE BOILERS ARE THE CONTROL

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** THESE BOILERS ARE OPERATED AS CONTROL FOR CO WHEN THE FLUID CATALYTIC CRACKING UNIT (FCCU) IS IN OPERATION. THE OPACITY LIMIT FOR THE STACK OR ANY EMISSIONS POINT FROM THESE BOILERS DOES NOT CHANGE REGARDLESS OF THE FCCU OPERATIONS. EXCEPT AS PROVIDED BY OHIO RULE: MAY EXCEED 20% OPACITY, AS A 6-MINUTE AVERAGE, FOR NOT MORE THAN 6 CONSECUTIVE MINUTES IN ANY 60 MINUTES, BUT SHALL NOT EXCEED 60% OPACITY AS A 6-MINUTE AVERAGE AT ANY TIME.

---

**PROCESS** FLUIDIZED CATALYTIC CRACKING UNIT

**NAME:**

**Process Type:** 50.003 (Petroleum Refining Conversion Processes (cracking, reforming, etc.))

**Primary Fuel:** PETROLEUM

**Throughput:** 84200.00 LB/H COKE BURN-OFF

**Process Notes:** FLUIDIZED CATALYTIC CRACKING UNIT (FCCU) WITH CAPACITY OF 100,000 BARRELS/DAY; W/ CO CONTROLLED BY TWO BOILERS (WHICH SHARE EMISSIONS LIMITS WITH THE FCCU); AN SCR SYSTEM FOR NOX, AND A WET GAS SCRUBBER FOR SO2 AND PM CONTROL.

**POLLUTANT NAME:** Particulate matter, filterable < 10 µ (FPM10)

**CAS Number:** PM

**Test Method:** EPA/OAR Mthd 201

**Pollutant Group(s):** ( Particulate Matter (PM) )

**Emission Limit 1:** 331.9200 T/YR ROLLING 365-DAY SUM OF DAILY EMISSIONS

**Emission Limit 2:** 0.9000 LB/1000 LB OF COKE POUND PER 1000 LB OF COKE BURNOFF

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** SIP , SIP

**Control Method:** (A) WET GAS SCRUBBER

**Est. % Efficiency:** 95.000

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** THESE LIMITS ARE SHARED WITH THE TWO BOILERS, I.E., THE T/YR LIMITS ARE FOR THE FCCU AND TWO BOILERS TOGETHER. IF REQUIRED TESTING SHALL BE PERFORMED IN ACCORDANCE WITH METHODS 201 AND 202, PART 51.

**POLLUTANT NAME:** Sulfur Dioxide (SO2)

**CAS Number:** 7446-09-5

**Test Method:** EPA/OAR Mthd 6

**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SOx) )

**Emission Limit 1:** 316.0000 LB/H FROM FCCU AND 2 BOILERS TOGETHER

**Emission Limit 2:** 345.7100 T/YR AS A ROLLING 365-DAY SUMMATION

**Standard Emission:** 25.0000 PPMVD AT 0% O2, AS A ROLLING 365-DAY AVG.CONC.

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U



**Case-by-Case Basis:** N/A  
**Other Applicable Requirements:** NSPS , SIP  
**Control Method:** (A) WET GAS SCRUBBER  
**Est. % Efficiency:** 95.500  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** THESE LIMITS ARE SHARED WITH THE TWO BOILERS CONTROLLING CO, I.E., THE LB/H AND T/YR LIMITS ARE FOR THE FCCU AND TWO BOILERS TOGETHER. ADDITIONAL LIMIT FOR BOILERS AND FCCU: 50 PPMVD AT 0% O2 AS A 7-DAY ROLLING AVERAGE 100 PPMVD AT 0% O2 AS THE MAXIMUM SO2 CONCENTRATION 3 LB SO2/1000 LBS OF FRESH FEED, PER OAC RULE 3745-18-54(O)(3). CEM FOR SO2 AND COMPLIANCE SHALL BE DEMONSTRATED USING METHODS AND PROCEDURES IN 40 CFR 60.106(H) -SMALL H INITIAL COMPLIANCE TEST USING METHOD 6 OR 6C. MAXIMUM OF 100 PPMVD ON A DRY BASIS AT 7% O2 ANNUAL AVERAGE OF 25 PPMVD ON A DRY BASIS AT 7% O2

**POLLUTANT NAME:** Nitrogen Oxides (NOx)  
**CAS Number:** 10102  
**Test Method:** Other  
**Other Test Method:** CEM FOR NOx  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )  
**Emission Limit 1:** 40.0000 PPMVD @ 0% O2 AS A 7-DAY ROLLING AVERAGE, AT 0%O2  
**Emission Limit 2:** 198.5100 T/YR AS 365-DAY SUMMATION OF DAILY EMISSIONS  
**Standard Emission:** 20.0000 PPMVD @ 0% O2 AS A 365-DAY ROLLING AVERAGE AT 0% O2  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** N/A  
**Other Applicable Requirements:** SIP  
**Control Method:** (A) SELECTIVE CATALYTIC REDUCTION  
**Est. % Efficiency:** 80.000  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** THESE LIMITS ARE SHARED WITH THE TWO BOILERS CONTROLLING CO, I.E., THE LB/H AND T/YR LIMITS ARE FOR THE FCCU AND TWO BOILERS TOGETHER. THE PERMITTEE MAY MEET EITHER THE 7-DAY ROLLING AVERAGE OR THE 365-DAY ROLLING AVERAGE LIMIT ABOVE.

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)  
**CAS Number:** VOC  
**Test Method:** EPA/OAR Mthd 25  
**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )

**Emission Limit 1:** 3.6700 LB/H  
**Emission Limit 2:** 16.0700 T/YR BASED ON 365-DAY SUM OF DAILY EMISSIONS

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** N/A

**Other Applicable Requirements:** SIP

**Control Method:** (N)

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** THESE LIMITS ARE SHARED WITH THE TWO BOILERS CONTROLLING CO, I.E., THE LB/H AND T/YR LIMITS ARE FOR THE FCCU AND TWO BOILERS TOGETHER. THE PERMITTEE HAS NETTED-OUT OF NONATTAINMENT NEW SOURCE REVIEW FOR VOC EMISSIONS. CAN USE METHOD 25 OR 25A.

**POLLUTANT NAME:** Sulfuric Acid (mist, vapors, etc)

**CAS Number:** 7664-93-9

**Test Method:** EPA/OAR Mthd 8

**Pollutant Group(s):** ( InOrganic Compounds , Particulate Matter (PM) )

**Emission Limit 1:** 215.8400 T/YR BASED ON 365-DAY SUM OF DAILY EMISSIONS

**Emission Limit 2:** 10.0000 PPMVD

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** N/A

**Other Applicable Requirements:** SIP

**Control Method:** (N)

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** THESE LIMITS ARE SHARED WITH THE TWO BOILERS CONTROLLING CO, I.E., THE LB/H AND T/YR LIMITS ARE FOR THE FCCU AND TWO BOILERS TOGETHER.

**POLLUTANT NAME:** Particulate matter, filterable (FPM)

**CAS Number:** PM

**Test Method:** Other

**Other Test Method:** 40 CFR 60.106

**Pollutant Group(s):** ( Particulate Matter (PM) )

**Emission Limit 1:** 0.4500 LB/1000 LB PER 1000 POUNDS OF COKE BURNOFF

**Emission Limit 2:** 165.9600 T/YR

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** N/A

**Other Applicable Requirements:** SIP

**Control Method:** (A) WET GAS SCRUBBER

**Est. % Efficiency:** 95.000

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** THIS LIMIT IS SHARED WITH THE TWO BOILERS CONTROLLING CO, I.E., THE LB/H AND T/YR LIMITS ARE FOR THE FCCU AND TWO BOILERS TOGETHER. IF REQUIRED, COMPLIANCE SHALL BE DEMONSTRATED USING METHODS AND PROCEDURES IN 40 CFR 60.106(A) AND (B) -SMALL A AND B

**POLLUTANT NAME:** Carbon Monoxide

**CAS Number:** 630-08-0

**Test Method:** Other

**Other Test Method:** CEM FOR CO

**Pollutant Group(s):** ( InOrganic Compounds )

**Emission Limit 1:** 180.0000 PPMVD@ 0% O2 AS ROLLING 365-DAY AVERAGE AT 0% O2

**Emission Limit 2:** 1087.2800 T/YR ROLLING 365-DAY SUM OF CO EMISSIONS

**Standard Emission:** 500.0000 PPMVD@0% O2 AS A 1-HOUR AVERAGE, AT 0% O2

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** NSPS , SIP

**Control Method:** (A) TWO BOILERS BURNING, IN PART, THE FCCU WASTE GASES

**Est. % Efficiency:** 99.000

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** THESE LIMITS ARE SHARED WITH THE TWO BOILERS CONTROLLING CO, I.E., THE LB/H AND T/YR LIMITS ARE FOR THE FCCU AND TWO BOILERS TOGETHER. THE PERMITTEE MUST MEET ONE OF THE LIMITS ABOVE, I.E, AS A 1-HOUR AVERAGE, AS A ROLLING 365-DAY AVERAGE, OR AS ROLLING 365-DAY SUMMATION OF THE DAILY CO EMISSIONS. DEMONSTRATE INITIAL COMPLIANCE USING METHODS 1 THROUGH 4 AND 40 CFR 60.106(D) -LITTLE D.

**POLLUTANT NAME:** Visible Emissions (VE)

**CAS Number:** VE

**Test Method:** EPA/OAR Mthd 9  
**Pollutant Group(s):**  
**Emission Limit 1:** 20.0000 % OPACITY AS A 6-MINUTE AVERAGE, EXCEPT PER RULE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** N/A  
**Other Applicable Requirements:** SIP  
**Control Method:** (A) TWO BOILERS COMBUST FCCU GAS  
**Est. % Efficiency:** 95.000  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** EXCEPT AS PROVIDED BY OHIO RULE: MAY EXCEED 20% OPACITY, AS A 6-MINUTE AVERAGE, FOR NOT MORE THAN 6 CONSECUTIVE MINUTES IN ANY 60 MINUTES, BUT SHALL NOT EXCEED 60% OPACITY AS A 6-MINUTE AVERAGE AT ANY TIME. VENTED TO THE BOILER CONTROLS.

**POLLUTANT NAME:** Ammonia (NH3)  
**CAS Number:** 7664-41-7  
**Test Method:** EPA/OAR Cond. Test Mthd 027  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 5.0000 PPMV AMMONIA SLIP EMISSIONS  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** N/A  
**Other Applicable Requirements:** SIP  
**Control Method:** (N)  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** FROM SELECTIVE CATALYTIC REDUCTION CONTROL. IF REQUIRED SHALL DEMONSTRATE COMPLIANCE WITH CTM 027.

Process/Pollutant Information
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**PROCESS** SULFUR RECOVERY UNIT  
**NAME:**

**Process Type:** 50.006 (Petroleum Refining Treating Processes (hydrotreating, acid gas removal, SRU's, etc.))

**Primary Fuel:**

**Throughput:**

**Process Notes:** CLAUS SULFUR RECOVERY UNIT AND SULFUR PIT WITH TAIL GAS UNIT AND INCINERATOR CONTROL. CONTINUOUS MONITORING SYSTEM FOR SO2 THIS IS AN OLDER SRU AND IT HAS FEWER BAT LIMITS THAN DOES THE NEW SRU ALSO INCLUDED IN THE PERMIT. EACH SRU IS SUBJECT TO THE REQUIREMENTS OF PART 60 SUBPARTS A AND J, AND PART 63 SUBPARTS A AND UUU

**POLLUTANT NAME:** Sulfur Dioxide (SO2)

**CAS Number:** 7446-09-5

**Test Method:** Other

**Other Test Method:** METHOD IN 40 CFR 60.106

**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SOx) )

**Emission Limit 1:** 0.0700 LB/LB S LB SO2/LB OF SULFUR PROCESSED

**Emission Limit 2:** 250.0000 PPMVD @ 0% AIR AS ROLLING 12-HR AVERAGE, 0% EXCESS AIR

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** N/A

**Other Applicable Requirements:** NSPS , SIP

**Control Method:** (A) TAIL GAS TREATMENT UNITS AND SRU INCINERATOR FOR H2S

**Est. % Efficiency:** 97.000

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** CONTINUOUS EMISSION MONITOR FOR SO2. PPMVD LIMIT IS FROM PART 60, SUBPART J. MUST MAINTAIN PREVENTIVE MAINTENANCE AND MALFUNCTION PLAN.

## Process/Pollutant Information

**PROCESS** FLARE, STEAM ASSISTED

**NAME:**

**Process Type:** 50.008 (Petroleum Refining Flares and Incinerators (except acid gas/SRU incinerators - 50.006))

**Primary Fuel:** PROCESS GASES

**Throughput:** 155.44 MMBTU/H

**Process Notes:** FLARE, STEAM ASSISTED, TO CONTROL HYDROCARBON EMISSIONS FROM PROCESS VENTS. SUBJECT TO PART 63, SUBPART CC AND PART 60, SUBPARTS A, J, AND GGG.

**POLLUTANT NAME:** Particulate matter, filterable < 10 µ (FPM10)  
**CAS Number:** PM  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Particulate Matter (PM) )  
**Emission Limit 1:** 1.1600 LB/H  
**Emission Limit 2:** 5.0800 T/YR BASED ON 365-DAY SUM OF DAILY EMISSIONS  
**Standard Emission:** 0.0074 LB/MMBTU  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** SIP , NSPS , MACT  
**Control Method:** (N)  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Sulfur Dioxide (SO2)  
**CAS Number:** 7446-09-5  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SOx) )  
**Emission Limit 1:** 4.2000 LB/H  
**Emission Limit 2:** 18.4000 T/YR BASED ON 365-DAY SUM OF DAILY EMISSIONS  
**Standard Emission:** 0.0100 GR/DSCF H2SO4 LIMIT FROM PART 60 SUBPART J  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** N/A  
**Other Applicable Requirements:** NSPS , SIP  
**Control Method:** (N)  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** THE H2SO4 LIMIT FROM PART 60 SUBPART J WAS USED TO ESTABLISH AN SO2 EMISSION FACTOR OF 0.027 LB/MMBTU.

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** Unspecified

**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 12.8000 LB/H  
**Emission Limit 2:** 56.0700 T/YR BASED ON 365-DAY SUM OF DAILY EMISSIONS  
**Standard Emission:** 0.0820 LB/MMBTU  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** NSPS , SIP  
**Control Method:** (N)  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Nitrogen Oxides (NOx)  
**CAS Number:** 10102  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )  
**Emission Limit 1:** 15.2300 LB/H  
**Emission Limit 2:** 66.7100 T/YR BASED ON 365-DAY SUM OF DAILY EMISSIONS  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** N/A  
**Other Applicable Requirements:** SIP  
**Control Method:** (N)  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)  
**CAS Number:** VOC  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )  
**Emission Limit 1:** 0.8400 LB/H  
**Emission Limit 2:** 3.6800 T/YR BASED ON 365-DAY SUM OF DAILY EMISSIONS  
**Standard Emission:** 5.5000 LB/MMSCF AP-42 FACTOR

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** MACT

**Other Applicable Requirements:** NSPS , MACT , SIP

**Control Method:** (A) FLARE IS CONTROL FOR HYDROCARBONS

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Visible Emissions (VE)

**CAS Number:** VE

**Test Method:** Unspecified

**Pollutant Group(s):**

**Emission Limit 1:** % OPACITY NO VE EXCEPT FOR 5 MIN DURING ANY 2 HRS

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** MACT

**Other Applicable Requirements:** MACT , SIP

**Control Method:** (N)

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** NO VISIBLE EMISSIONS EXCEPT FOR PERIODS NOT TO EXCEED A TOTAL OF 5 MINUTES DURING ANY 2 CONSECUTIVE HOURS OF OPERATION, FROM PART 63, SUBPART A.

Process/Pollutant Information
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**PROCESS** WASTEWATER STREAMS

**NAME:**

**Process Type:** 50.009 (Petroleum Refining Wastewater and Wastewater Treatment)

**Primary Fuel:**

**Throughput:**

**Process Notes:** ALL WASTEWATER STREAMS, COOLING TOWERS, WASTEWATER TANKS, AND STORM WATER SYSTEMS IN THE REFINERY

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)



**CAS Number:** VOC  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )  
**Emission Limit 1:** 91.1900 T/YR  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** MACT  
**Other Applicable Requirements:** MACT , NSPS , SIP  
**Control Method:** (N)  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** APPLICABLE REQUIREMENTS FROM: PART 60, SUBPART QQQ; PART 61, SUBPART FF; PART 63, SUBPART CC

### Process/Pollutant Information

**PROCESS NAME:** COOLING TOWER  
**Process Type:** 50.999 (Other Petroleum/Natural Gas Production & Refining Sources (except 42 - Liquid Marketing))  
**Primary Fuel:**  
**Throughput:** 2000.00 GAL/MIN  
**Process Notes:** NON-CONTACT, INDUCED DRAFT, WITH DRIFT ELIMINATION

**POLLUTANT NAME:** Particulate matter, filterable (FPM)  
**CAS Number:** PM  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Particulate Matter (PM) )  
**Emission Limit 1:** 0.1200 LB/H  
**Emission Limit 2:** 0.5200 T/YR AS A ROLLING 12-MONTH SUMMATION  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** N/A  
**Other Applicable Requirements:** SIP  
**Control Method:** (A) DRIFT ELIMINATOR

**Est. % Efficiency:** 75.000  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** REQUIREMENT TO TEST AND RECORD TDS CONTENT, IN PPM, OF THE COOLING WATER ONCE PER WEEK. TDS VALUE OF 2500 PPM, ASSUMING A DRIFT LOSS OF 0.005%, WAS USED TO CALCULATE THE PM 10 LIMIT.

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)  
**CAS Number:** VOC  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )  
**Emission Limit 1:** 0.0840 LB/H  
**Emission Limit 2:** 0.3700 T/YR  
**Standard Emission:** 0.7000 LB/MM LBS PER MILLION GALLONS OF FLOW  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** N/A  
**Other Applicable Requirements:** SIP  
**Control Method:** (N)  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** EMISSION FACTOR FROM AP-42, TABLE 5.1-2

**POLLUTANT NAME:** Visible Emissions (VE)  
**CAS Number:** VE  
**Test Method:** Unspecified  
**Pollutant Group(s):**  
**Emission Limit 1:** 10.0000 % OPACITY AS A 6-MINUTE AVERAGE, EXCEPT PER RULE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** SIP  
**Control Method:** (N)  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

## Process/Pollutant Information

**PROCESS** SULFUR RECOVERY UNIT

**NAME:**

**Process Type:** 50.006 (Petroleum Refining Treating Processes (hydrotreating, acid gas removal, SRU's, etc.))

**Primary Fuel:** REFINERY FUEL GAS

**Throughput:** 17.00 MMBTU/H

**Process Notes:** CLAUS SULFUR RECOVERY UNIT AND SULFUR PIT WITH TAIL GAS UNIT AND INCINERATOR CONTROL. STACK GAS FLOW RATE OF 4020 DSCFM OR 3899 DSCFM AT 0% O<sub>2</sub>. BURN NATURAL GAS OR REFINERY FUEL GAS ONLY CONTINUOUS MONITORING SYSTEM FOR SO<sub>2</sub> EACH SRU IS SUBJECT TO THE REQUIREMENTS OF PART 60 SUBPARTS A AND J, AND PART 63 SUBPARTS A AND UU

**POLLUTANT NAME:** Sulfur Dioxide (SO<sub>2</sub>)

**CAS Number:** 7446-09-5

**Test Method:** EPA/OAR Mthd 6

**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SO<sub>x</sub>) )

**Emission Limit 1:** 9.8800 LB/H

**Emission Limit 2:** 43.2800 T/YR BASED ON 365-DAY SUM OF DAILY EMISSIONS

**Standard Emission:** 250.0000 PPMVD @ 0% AIR AS ROLLING 12-HR AVERAGE, 0% EXCESS AIR

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** N/A

**Other Applicable Requirements:** NSPS , SIP

**Control Method:** (A) TAIL GAS TREATMENT UNITS AND SRU INCINERATOR FOR H<sub>2</sub>S

**Est. % Efficiency:** 97.000

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** CONTINUOUS EMISSION MONITOR FOR SO<sub>2</sub> WITH WRITEN QUALITY ASSURANCE AND CONTROL PLAN FOR THE SO<sub>2</sub> MONITORING SYSTEM. IF REQUIRED METHOD 6.

**POLLUTANT NAME:** Particulate matter, filterable < 10 µ (FPM10)

**CAS Number:** PM

**Test Method:** EPA/OAR Mthd 201

**Pollutant Group(s):** ( Particulate Matter (PM) )

**Emission Limit 1:** 1.3600 LB/H

**Emission Limit 2:** 5.9600 T/YR BASED ON 365-DAY SUM OF DAILY EMISSIONS

**Standard Emission:** 0.0800 LB/MMBTU  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** SIP , NSPS , MACT  
**Control Method:** (N)  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** IF REQUIRED METHODS 5 FOR PM AND METHOD 201/202 FOR CONDENSABLE PM.

**POLLUTANT NAME:** Nitrogen Oxides (NOx)  
**CAS Number:** 10102  
**Test Method:** EPA/OAR Mthd 7  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )  
**Emission Limit 1:** 2.5500 LB/H  
**Emission Limit 2:** 11.1700 T/YR BASED ON 365-DAY SUM OF DAILY EMISSIONS  
**Standard Emission:** 0.1500 LB/MMBTU MANUFACTURER'S RATING  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** N/A  
**Other Applicable Requirements:** SIP  
**Control Method:** (P) LOW NOX BURNERS  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** IF REQUIRED METHOD 7.

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)  
**CAS Number:** VOC  
**Test Method:** EPA/OAR Mthd 25  
**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )  
**Emission Limit 1:** 0.8900 LB/H  
**Emission Limit 2:** 3.8900 T/YR BASED ON 365-DAY SUM OF DAILY EMISSIONS  
**Standard Emission:** 60.0000 PPMVD AT 0% O2  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** N/A  
**Other Applicable Requirements:** NSPS , MACT , SIP

**Control Method:** (A) TAIL GAS TREATER WITH 7 MMBTU/HR INCINERATOR  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** IF REQUIRED METHOD 25.

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** EPA/OAR Mthd 10  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 2.5900 LB/H  
**Emission Limit 2:** 11.3400 T/YR BASED ON 365-DAY SUM OF DAILY EMISSIONS  
**Standard Emission:** 0.1500 LB/MMBTU HEAT INPUT OF 7 MMBTU/HR INCINERATOR  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** NSPS , SIP  
**Control Method:** (N)  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** IF REQUIRED METHOD 10.

**POLLUTANT NAME:** Visible Emissions (VE)  
**CAS Number:** VE  
**Test Method:** Unspecified  
**Pollutant Group(s):**  
**Emission Limit 1:** 10.0000 % OPACITY AS A 6-MINUTE AVERAGE  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** N/A  
**Other Applicable Requirements:** SIP  
**Control Method:** (N)  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Hydrogen Sulfide  
**CAS Number:** 7783-06-4  
**Test Method:** Other  
**Other Test Method:** 40 CFR 60.106  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 10.0000 PPMVD  
**Emission Limit 2:** 0.9500 T/YR BASED ON 365-DAY SUM OF DAILY EMISSIONS  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** N/A  
**Other Applicable Requirements:** SIP  
**Control Method:** (A) THERMAL OXIDIZER, 7 MMBTU/HR  
**Est. % Efficiency:** 99.000  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** IF REQUIRED COMPLIANCE SHALL BE DEMONSTRATED ACCORDING TO 40 CFR 60.106(F)(2) - LITTLE F.

### Process/Pollutant Information

**PROCESS** LEAK DETECTION AND REPAIR (LDAR) PROGRAM

**NAME:**

**Process Type:** 50.007 (Petroleum Refining Equipment Leaks/Fugitive Emissions)

**Primary Fuel:**

**Throughput:**

**Process Notes:** FACILITY WIDE LEAK DETECTION AND REPAIR PROGRAM SUBJECT TO PART 63 SUBPART CC, PART 60 SUBPARTS VV AND GGG.

**POLLUTANT NAME:** Volatile Organic Compounds (VOC)  
**CAS Number:** VOC  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )  
**Emission Limit 1:** 385.4300 T/YR PER ROLLING 12 MONTHS  
**Emission Limit 2:**

**Standard Emission:****Did factors, other than air pollution technology considerations influence the BACT decisions:** U**Case-by-Case Basis:** MACT**Other Applicable Requirements:** NSPS , MACT , SIP**Control Method:** (P) LEAK DETECTION AND REPAIR PROGRAM**Est. % Efficiency:****Compliance Verified:** Unknown**Pollutant/Compliance Notes:** SUBJECT TO PART 63, SUBPART CC AND PART 60 SUBPARTS VV AND GGG. IN ACCORDANCE WITH 63.648 THE UNIT IS INCLUDED IN A FACILITY-WIDE LEAK DETECTION AND REPAIR PROGRAM.**Process/Pollutant Information****PROCESS NAME:** PROPYLENE-PROPANE LOADING RACK**Process Type:** 50.004 (Petroleum Refining Feedstock (blending, loading and unloading))**Primary Fuel:** PROPANE/PROPYLENE**Throughput:** 34224600.00 GAL/YR**Process Notes:** RAILCAR LOADING, WITH 6 LOADING ARMS USING PRESSURIZED LOADING.**POLLUTANT NAME:** Volatile Organic Compounds (VOC)**CAS Number:** VOC**Test Method:** Unspecified**Pollutant Group(s):** ( Volatile Organic Compounds (VOC) )**Emission Limit 1:** 1.6000 T/YR PER ROLLING 12-MONTH PERIOD**Emission Limit 2:** 0.0935 LB/1000 GAL SUBMITTED EMISSION FACTOR**Standard Emission:****Did factors, other than air pollution technology considerations influence the BACT decisions:** U**Case-by-Case Basis:** N/A**Other Applicable Requirements:** MACT , SIP**Control Method:** (P) PRESSURIZED LOADING**Est. % Efficiency:****Compliance Verified:** Unknown**Pollutant/Compliance Notes:** SUBJECT TO PART 63 SUBPARTS A AND CC. BACK CALCULATED TO 34,224,599 GALLONS/YEAR (NOT PROVIDED)

## Facility Information

<b>RBLC ID:</b>	OK-0136 (final)	<b>Date Determination</b>	
<b>Corporate/Company Name:</b>	CONOCOPHILLIPS	<b>Last Updated:</b>	02/18/2010
<b>Facility Name:</b>	PONCA CITY REFINERY	<b>Permit Number:</b>	2007-042-C PSD
<b>Facility Contact:</b>		<b>Permit Date:</b>	02/09/2009 (actual)
<b>Facility Description:</b>		<b>FRS Number:</b>	4007100005
<b>Permit Type:</b>	D: Both B (Add new process to existing facility) &C (Modify process at existing facility)	<b>SIC Code:</b>	2911
<b>Permit URL:</b>		<b>NAICS Code:</b>	324110
<b>EPA Region:</b>	6	<b>COUNTRY:</b>	USA
<b>Facility County:</b>	KAY		
<b>Facility State:</b>	OK		
<b>Facility ZIP Code:</b>	746021267		
<b>Permit Issued By:</b>	OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY (Agency Name) MR. JERRY GOOCHEY(Agency Contact) (405)702-4189 JERRY.GOOCHEY@DEQ.OK.GOV		
<b>Permit Notes:</b>			

## Process/Pollutant Information

**PROCESS** TB-1, TB-2, TB-3

**NAME:**

**Process Type:** 13.310 (Natural Gas (includes propane and liquefied petroleum gas))

**Primary Fuel:** NATURAL GAS

**Throughput:** 95.00 MMBTU/H

**Process Notes:** ADD THREE LEASED BOILERS (TB-1,TB-2,TB-3)TO PROVIDE SUPPLEMENTAL STEAM TO THE REFINERY PROCESS UNITS. THESE BOILERS WILL TEMPORARILY REPLACE TWO OLD BOILERS (VINTAGE 1959 AND 1971) WHICH ARE TO BE SHUTDOWN PER THE CONSENT DECREE.

  

<b>POLLUTANT NAME:</b>	Nitrogen Oxides (NOx)
<b>CAS Number:</b>	10102
<b>Test Method:</b>	Unspecified
<b>Pollutant Group(s):</b>	( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )



**Emission Limit 1:** 3.4200 LB/H 365-DAY ROLLING AVERAGE  
**Emission Limit 2:** 15.0000 T/YR 365-DAY ROLLING AVERAGE  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** N  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** MACT  
**Control Method:** (P) ULTRA-LOW NOX BURNERS; 0.036 LB/MMBTU.  
**Est. % Efficiency:** 60.000  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** NOX DETERMINATION WAS THE SAME FOR EACH OF THE BOILERS TB-1, TB-2, AND TB-3.

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 3.8000 LB/H 365-DAY ROLLING AVERAGE  
**Emission Limit 2:** 16.6000 TONS PER YEAR 365-DAY ROLLING AVERAGE  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** N  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** MACT  
**Control Method:** (P) ULTRA-LOW NOX BURNERS AND GOOD COMBUSTION PRACTICE; 0.04 LB/MMBTU  
**Est. % Efficiency:** 50.000  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** CO DETERMINATIONS WERE THE SAME FOR EACH OF THE BOILERS TB-1, TB-2, AND TB-3.

Process/Pollutant Information
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**PROCESS NAME:** NH-1 NEW NAPHTHA SPLITTER REBOILER  
**Process Type:** 12.290 (Other Liquid Fuel & Liquid Fuel Mixtures)  
**Primary Fuel:** REFINERY GAS  
**Throughput:** 131.30 MMBTU/H  
**Process Notes:** COMPONENT OF THE BENZENE REDUCTION PROJECT.

**POLLUTANT NAME:** Nitrogen Oxides (NOx)  
**CAS Number:** 10102  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )  
**Emission Limit 1:** 3.9400 LB/H 365-DAY ROLLING AVERAGE  
**Emission Limit 2:** 17.3000 T/YR 365-DAY ROLLING AVERAGE  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** N  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** MACT  
**Control Method:** (P) ULTRA-LOW NOX BURNERS; 0.03 LB/MMBTU.  
**Est. % Efficiency:** 60.000  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 5.2500 LB/H 365-DAY ROLLING AVERAGE  
**Emission Limit 2:** 23.0000 T/YR 365-DAY ROLLING AVERAGE  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** N  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** MACT  
**Control Method:** (P) ULTRA-LOW NOX BURNERS; GOOD COMBUSTION PRACTICE. 0.04 LB/MMBTU.  
**Est. % Efficiency:** 50.000  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

Process/Pollutant Information
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**PROCESS** NH-3 NEW NO. 4 CTU VACUUM HEATER  
**NAME:**

**Process Type:** 13.390 (Other Gaseous Fuel & Gaseous Fuel Mixtures)

**Primary Fuel:** REFINERY GAS

**Throughput:** 45.00 MMBTU/H

**Process Notes:** THE NO.4 CTU VACUUM TOWER FURNACE, H-3, WILL BE REPLACED IN ORDER TO MEET THE CRUDE OIL 1.0 WT% SULFUR DESIGN BASIS. THE NEW HEATER WILL INCLUDE NOX CONTROLS, A SAFETY INSTRUMENT SYSTEM, AND A FUEL GAS COALESCER SYSTEM.

**POLLUTANT NAME:** Nitrogen Oxides (NO<sub>x</sub>)

**CAS Number:** 10102

**Test Method:** Unspecified

**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NO<sub>x</sub>) , Particulate Matter (PM) )

**Emission Limit 1:** 1.3900 LB/H 365-DAY ROLLING AVERAGE

**Emission Limit 2:** 5.9000 T/YR 365-DAY ROLLING AVERAGE

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** N

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** MACT

**Control Method:** (P) ULTRA-LOW NOX BURNERS. 0.03 LB/MMBTU

**Est. % Efficiency:** 60.000

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Carbon Monoxide

**CAS Number:** 630-08-0

**Test Method:** Unspecified

**Pollutant Group(s):** ( InOrganic Compounds )

**Emission Limit 1:** 1.8000 LB/H 365-DAY ROLLING AVERAGE

**Emission Limit 2:** 7.9000 T/YR 365-DAY ROLLING AVERAGE

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** N

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** MACT

**Control Method:** (P) ULTRA-LOW NOX BURNERS; GOOD COMBUSTION PRACTICE. 0.04 LB/MMBTU

**Est. % Efficiency:** 50.000

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:**

<b>Process/Pollutant Information</b>
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**PROCESS** NH-4 NEW NO. 4 CTU CRUDE HEATER

**NAME:**

**Process Type:** 12.290 (Other Liquid Fuel & Liquid Fuel Mixtures)

**Primary Fuel:** REFINERY GAS

**Throughput:** 125.00 MMBTU/H

**Process Notes:** THE NO. 4 CTU ATMOSPHERIC TOWER FURNACE, H-4, RADIANT TUBES ARE ESTIMATED TO REACH END OF LIFE BASED ON SERVICE HOURS AND SULFUR CORROSION BEFORE 2017. AS SUCH, THE DECISION WAS MADE TO REPLACE THE EXISTING FURNACE WITH NEW EQUIPMENT THAT WILL INCLUDE NOX CONTROLS, A SAFETY INSTRUMENT SYSTEM, CONTINUOUS EMISSION MONITORING EQUIPMENT, AND A FUEL GAS COALESCER SYSTEM.

**POLLUTANT NAME:** Nitrogen Oxides (NOx)

**CAS Number:** 10102

**Test Method:** Unspecified

**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )

**Emission Limit 1:** 3.7500 LB/H 365-DAY ROLLING AVERAGE

**Emission Limit 2:** 16.4000 T/YR 365-DAY ROLLING AVERAGE

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** N

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** MACT

**Control Method:** (P) ULTRA-LOW NOX BURNERS. 0.03 LB/MMBTU

**Est. % Efficiency:** 60.000

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Carbon Monoxide

**CAS Number:** 630-08-0

**Test Method:** Unspecified

**Pollutant Group(s):** ( InOrganic Compounds )

**Emission Limit 1:** 5.0000 LB/H 365-DAY ROLLING AVERAGE

**Emission Limit 2:** 21.9000 T/YR 365-DAY ROLLING AVERAGE  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** N  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** MACT  
**Control Method:** (P) ULTRA-LOW NOX BURNERS; GOOD COMBUSTION PRACTICE. 0.04 LB/MMBTU  
**Est. % Efficiency:** 50.000  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

Process/Pollutant Information
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**PROCESS** NH-5 NEW NO. 1 CTU TAR STRIPPER HEATER

**NAME:**

**Process Type:** 13.390 (Other Gaseous Fuel & Gaseous Fuel Mixtures)

**Primary Fuel:** REFINERY GAS

**Throughput:** 98.00 MMBTU/H

**Process Notes:** THE PROJECT WILL IMPROVE ENERGY EFFICIENCY AND REDUCE ENVIRONMENTAL EMISSIONS BY REPLACING TAR STRIPPER FURNACE H-5 WITH A MODERN FURNACE THAT PROVIDES PROCESS HEAT INPUT AND GENERATES STEAM FROM WASTE HEAT.

**POLLUTANT NAME:** Nitrogen Oxides (NOx)  
**CAS Number:** 10102  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM) )  
**Emission Limit 1:** 2.9400 LB/H 365-DAY ROLLING AVERAGE  
**Emission Limit 2:** 12.9000 T/YR 365-DAY ROLLING AVERAGE  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** N  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** MACT  
**Control Method:** (P) ULTRA-LOW NOX BURNERS. 0.03 LB/MMBTU  
**Est. % Efficiency:** 60.000  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 3.9200 LB/H 365-DAY ROLLING AVERAGE  
**Emission Limit 2:** 17.2000 T/YR 365-DAY ROLLING AVERAGE  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** N  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** MACT  
**Control Method:** (P) ULTRA-LOW NOX BURNERS; GOOD COMBUSTION PRACTICE. 0.04 LB/MMBTU  
**Est. % Efficiency:** 50.000  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:**

## Facility Information

<b>RBLC ID:</b>	LA-0233 (final)	<b>Date Determination</b>
<b>Corporate/Company Name:</b>	CITGO PETROLEUM COMPANY	<b>Last Updated:</b> 08/18/2009
<b>Facility Name:</b>	LAKE CHARLES COMPLEX	<b>Permit Number:</b> PSD-LA-577(M-1)
<b>Facility Contact:</b>	STEVEN R. HAYS 3377086183	<b>Permit Date:</b> 01/30/2009 (actual)
<b>Facility Description:</b>	POWERHOUSE OPERATIONS	<b>FRS Number:</b> UNKNOWN
<b>Permit Type:</b>	A: New/Greenfield Facility	<b>SIC Code:</b> 2911
<b>Permit URL:</b>		<b>NAICS Code:</b> 324110
<b>EPA Region:</b>	6	<b>COUNTRY:</b> USA
<b>Facility County:</b>	CALCASIEU	
<b>Facility State:</b>	LA	
<b>Facility ZIP Code:</b>	706021562	
<b>Permit Issued By:</b>	LOUISIANA DEPARTMENT OF ENV QUALITY (Agency Name) MR. KEITH JORDAN(Agency Contact) (225)219-3613 KEITH.JORDAN@LA.GOV	
<b>Other Agency Contact Info:</b>	PERMIT WRITER: MR. ANTHONY RANDALL 225-219-3130	

**Permit Notes:**

Process/Pollutant Information
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**PROCESS NAME:** 3(K-6)8 POWERHOUSE BOILER B-5A  
**Process Type:** 11.310 (Natural Gas (includes propane and liquefied petroleum gas))  
**Primary Fuel:** NATURAL GAS  
**Throughput:** 337.60 MMBTU/H  
**Process Notes:** BOILER PLATE RATING: 645 MMBTU/H

**POLLUTANT NAME:** Carbon Monoxide

**CAS Number:** 630-08-0

**Test Method:** Unspecified

**Pollutant Group(s):** ( InOrganic Compounds )

**Emission Limit 1:** 41.0400 LB/H

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** Y

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (P) GOOD COMBUSTION CONTROL. VENDOR GUARANTEE OF 70 PPM OR LESS

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** TO ENSURE COMPLIANCE WITH CONTEMPORANEOUS EMISSION CHANGES THE FOLLOWING  
UNITS SHALL REMAIN PERMANENTLY SHUTDOWN: SOURCE ID 1F - FURNACE B-1 SOURCE ID  
1G - FURNACE B-2 SOURCE ID 2X - BOILER BF-601-C

Process/Pollutant Information
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**PROCESS NAME:** 3(K-6)9 POWERHOUSE BOILER B-5  
**Process Type:** 11.310 (Natural Gas (includes propane and liquefied petroleum gas))  
**Primary Fuel:** NATURAL GAS  
**Throughput:** 337.60 MMBTU/H

**Process Notes:**

BOILER PLATE RATING: 645 MMBTU/H

**POLLUTANT NAME:** Carbon Monoxide  
**CAS Number:** 630-08-0  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds )  
**Emission Limit 1:** 41.0400 LB/H  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) GOOD COMBUSTION CONTROL. VENDOR GUARANTEE OF 70 PPM OR LESS  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** TO ENSURE COMPLIANCE WITH CONTEMPORANEOUS EMISSION CHANGES THE FOLLOWING UNITS SHALL REMAIN PERMANENTLY SHUTDOWN: SOURCE ID 1F - FURNACE B-1 SOURCE ID 1G - FURNACE B-2 SOURCE ID 2X - BOILER BF-601-C

**Facility Information**

<b>RBLC ID:</b>	LA-0234 (final)	<b>Date</b>
		<b>Determination</b>
		<b>Last Updated:</b> 08/18/2009
<b>Corporate/Company</b>	CITGO PETROLEUM COMPANY	<b>Permit Number:</b> PSD-LA-691(M-1)
<b>Name:</b>		
<b>Facility Name:</b>	LAKE CHARLES COMPLEX - CAT GAS HYDRO	<b>Permit Date:</b> 01/26/2009 (actual)
<b>Facility Contact:</b>	STEVEN R. HAYES 3377086183	<b>FRS Number:</b> UNKNOWN
<b>Facility Description:</b>	THIS PROCESS PRODUCES A FCC GASOLINE STREAM WHICH IS TREATED TO REDUCE SULFUR CONTENT BY APPROXIMATELY 92% HROUGH THE HYDROTREATING FACILITY.	<b>SIC Code:</b> 2911
<b>Permit Type:</b>	C: Modify process at existing facility	<b>NAICS Code:</b> 324110
<b>Permit URL:</b>		
<b>EPA Region:</b>	6	<b>COUNTRY:</b> USA
<b>Facility County:</b>	CALCASIEU	



**Facility State:** LA  
**Facility ZIP Code:** 706021424  
**Permit Issued By:** LOUISIANA DEPARTMENT OF ENV QUALITY (Agency Name)  
MR. KEITH JORDAN(Agency Contact) (225)219-3613 KEITH.JORDAN@LA.GOV  
**Other Agency Contact** PERMIT WRITER MR. ANTHONY RANDALL PH. NO. 225-219-3130  
**Info:**  
**Permit Notes:** THE FOUR FURNACES AND TWO REBOILERS ARE CAPPED FOR AN ANNUAL AVERAGE FIRING RATE OF 316 MM BTU/HR WHICH IS LESS THAN THE SUM OF THE AVERAGE FIRING RATES FOR ALL SIX OF THE UNITS.

### Process/Pollutant Information

**PROCESS NAME:** 3(XXXIV)7-101 FURNACE B-101  
**Process Type:** 13.390 (Other Gaseous Fuel & Gaseous Fuel Mixtures)  
**Primary Fuel:** FUEL GAS  
**Throughput:** 62.80 MMBTU/H  
**Process Notes:** RATED CAPACITY OF FURNACE IS 82 MMBTU/H

**POLLUTANT NAME:** Sulfur Dioxide (SO<sub>2</sub>)  
**CAS Number:** 7446-09-5  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SO<sub>x</sub>) )  
**Emission Limit 1:** 5.0800 LB/H  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other then air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) USE LOW SULFUR CONCENTRATION FUEL GAS.  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** ORIGINAL PSD ESTABLISHED AN AVERAGE SULFUR CONCENTRATION OF 182 PPM AND A MAXIMUM OF 332 PPM IN THE FUEL GAS. THIS RECONCILIATION AFTER DETERMINING MORE UPDATED SULFUR CONCENTRATIONS RAISES THOSE VALUES TO AN AVERAGE OF 218.4 PPM AND A MAXIMUM OF 475 PPM IN THE FUEL GAS.

## Process/Pollutant Information

**PROCESS NAME:** 3(XXXIV)7-102 FURNACE B-102  
**Process Type:** 13.390 (Other Gaseous Fuel & Gaseous Fuel Mixtures)  
**Primary Fuel:** FUEL GAS  
**Throughput:** 62.80 MMBTU/H  
**Process Notes:** FURNACE RATED CAPACITY IS 82 MMBTU/H

**POLLUTANT NAME:** Sulfur Dioxide (SO<sub>2</sub>)

**CAS Number:** 7446-09-5

**Test Method:** Unspecified

**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SO<sub>x</sub>) )

**Emission Limit 1:** 5.0800 LB/H

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (P) LOW SULFUR CONCENTRATION IN THE FUEL GAS

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** ORIGINAL PSD ESTABLISHED AN AVERAGE SULFUR CONCENTRATION OF 182 PPM AND A MAXIMUM OF 332 PPM IN THE FUEL GAS. THIS RECONCILIATION AFTER DETERMINING MORE UPDATED SULFUR CONCENTRATIONS RAISES THOSE VALUES TO AN AVERAGE OF 218.4 PPM AND A MAXIMUM OF 475 PPM IN THE FUEL GAS.

## Process/Pollutant Information

**PROCESS NAME:** 3(XXXIV)7-201 FURNACE B-201  
**Process Type:** 13.390 (Other Gaseous Fuel & Gaseous Fuel Mixtures)  
**Primary Fuel:** FUEL GAS  
**Throughput:** 56.90 MMBTU/H  
**Process Notes:** FURNACE RATED CAPACITY IS 82 MMBTU/H

**POLLUTANT NAME:** Sulfur Dioxide (SO<sub>2</sub>)  
**CAS Number:** 7446-09-5  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SO<sub>x</sub>) )  
**Emission Limit 1:** 5.0800 LB/H  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) LOW SULFUR CONCENTRATION IN THE FUEL GAS  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** ORIGINAL PSD ESTABLISHED AN AVERAGE SULFUR CONCENTRATION OF 182 PPM AND A MAXIMUM OF 332 PPM IN THE FUEL GAS. THIS RECONCILIATION AFTER DETERMINING MORE UPDATED SULFUR CONCENTRATIONS RAISES THOSE VALUES TO AN AVERAGE OF 218.4 PPM AND A MAXIMUM OF 475 PPM IN THE FUEL GAS.

Process/Pollutant Information
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**PROCESS NAME:** 3(XXXIV)7-202 FURNACE B-202  
**Process Type:** 13.390 (Other Gaseous Fuel & Gaseous Fuel Mixtures)  
**Primary Fuel:** FUEL GAS  
**Throughput:** 56.90 MMBTU/H  
**Process Notes:** FURNACE RATED CAPCITY IS 82 MMBTU/H

**POLLUTANT NAME:** Sulfur Dioxide (SO<sub>2</sub>)  
**CAS Number:** 7446-09-5  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SO<sub>x</sub>) )  
**Emission Limit 1:** 5.0800 LB/H  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U  
**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) LOW SULFUR CONCENTRATION IN THE FUEL GAS  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** ORIGINAL PSD ESTABLISHED AN AVERAGE SULFUR CONCENTRATION OF 182 PPM AND A MAXIMUM OF 332 PPM IN THE FUEL GAS. THIS RECONCILIATION AFTER DETERMINING MORE UPDATED SULFUR CONCENTRATIONS RAISES THOSE VALUES TO AN AVERAGE OF 218.4 PPM AND A MAXIMUM OF 475 PPM IN THE FUEL GAS.

### Process/Pollutant Information

**PROCESS NAME:** 3(XXXIV)7-103 REBOILER B-103  
**Process Type:** 13.390 (Other Gaseous Fuel & Gaseous Fuel Mixtures)  
**Primary Fuel:** FUEL GAS  
**Throughput:** 38.30 MMBTU/H  
**Process Notes:** REBOILER RATED AT 50 MMBTU/H

**POLLUTANT NAME:** Sulfur Dioxide (SO<sub>2</sub>)  
**CAS Number:** 7446-09-5  
**Test Method:** Unspecified  
**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SO<sub>x</sub>) )  
**Emission Limit 1:** 3.1000 LB/H  
**Emission Limit 2:**  
**Standard Emission:**  
**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD  
**Other Applicable Requirements:** OPERATING PERMIT  
**Control Method:** (P) LOW SULFUR CONCENTRATION IN THE FUEL GAS  
**Est. % Efficiency:**  
**Compliance Verified:** Unknown  
**Pollutant/Compliance Notes:** ORIGINAL PSD ESTABLISHED AN AVERAGE SULFUR CONCENTRATION OF 182 PPM AND A MAXIMUM OF 332 PPM IN THE FUEL GAS. THIS RECONCILIATION AFTER DETERMINING MORE UPDATED SULFUR CONCENTRATIONS RAISES THOSE VALUES TO AN AVERAGE OF 218.4 PPM AND A MAXIMUM OF 475 PPM IN THE FUEL GAS.

## Process/Pollutant Information

**PROCESS NAME:** 3(XXXIV)7-203 REBOILER B-203  
**Process Type:** 13.390 (Other Gaseous Fuel & Gaseous Fuel Mixtures)  
**Primary Fuel:** FUEL GAS  
**Throughput:** 38.30 MMBTU/H  
**Process Notes:** REBOILER RATED AT 50 MM BTU/HR

**POLLUTANT NAME:** Sulfur Dioxide (SO<sub>2</sub>)

**CAS Number:** 7446-09-5

**Test Method:** Unspecified

**Pollutant Group(s):** ( InOrganic Compounds , Oxides of Sulfur (SO<sub>x</sub>) )

**Emission Limit 1:** 3.1000 LB/H

**Emission Limit 2:**

**Standard Emission:**

**Did factors, other than air pollution technology considerations influence the BACT decisions:** U

**Case-by-Case Basis:** BACT-PSD

**Other Applicable Requirements:** OPERATING PERMIT

**Control Method:** (P) LOW SULFUR CONCENTRATION IN THE FUEL GAS

**Est. % Efficiency:**

**Compliance Verified:** Unknown

**Pollutant/Compliance Notes:** ORIGINAL PSD ESTABLISHED AN AVERAGE SULFUR CONCENTRATION OF 182 PPM AND A MAXIMUM OF 332 PPM IN THE FUEL GAS. THIS RECONCILIATION AFTER DETERMINING MORE UPDATED SULFUR CONCENTRATIONS RAISES THOSE VALUES TO AN AVERAGE OF 218.4 PPM AND A MAXIMUM OF 475 PPM IN THE FUEL GAS.